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Scientific and Technical Information Center

SEARCH REQUEST FORM

Requester's Full Name: SABIHA QAIZI Examiner #: 74141 Date: 8/10/06
Art Unit: 1616 Phone Number: 2-0622 Serial Number: 10/752,057
Location (Bldg/Room#): 4A45 (Mailbox #): 4C70 Results Format Preferred (circle): PAPER DISK

To ensure an efficient and quality search, please attach a copy of the cover sheet, claims, and abstract or fill out the following:

Title of Invention: Antiprotozoal Saponins

Inventors (please provide full names): Louis Jules Roger Marie Maes et al

Earliest Priority Date: 12/22/1998 Div of 6,872,713

Search Topic:

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc., if known.

For Sequence Searches Only Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

cls 15-21

①
Please search for the compds cl 19 & their ethers

②
Search for triterpene saponins from
family: Myrsinaceae, species
Maesa balansae.

③
Search for triterpene
Search for cl 15 for triterpene
Saponins

Qb
8/16/06

Please attach sheets

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STRUCTURE FILE UPDATES: 15 AUG 2006 HIGHEST RN 901654-60-2
DICTIONARY FILE UPDATES: 15 AUG 2006 HIGHEST RN 901654-60-2

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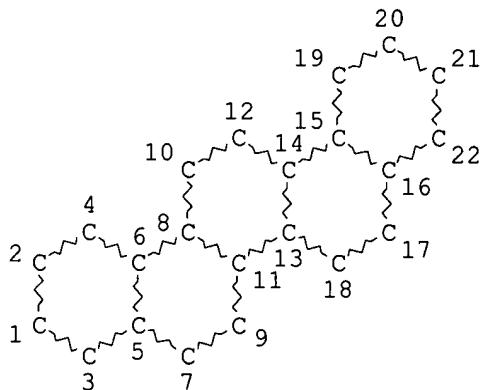
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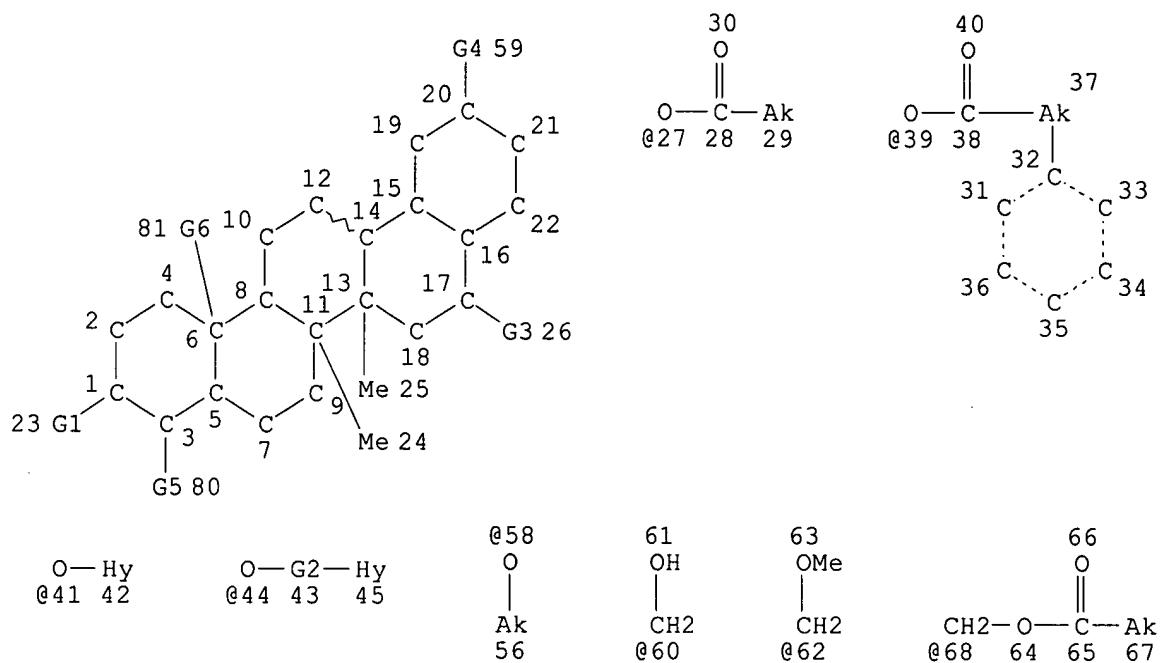
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L1 STR



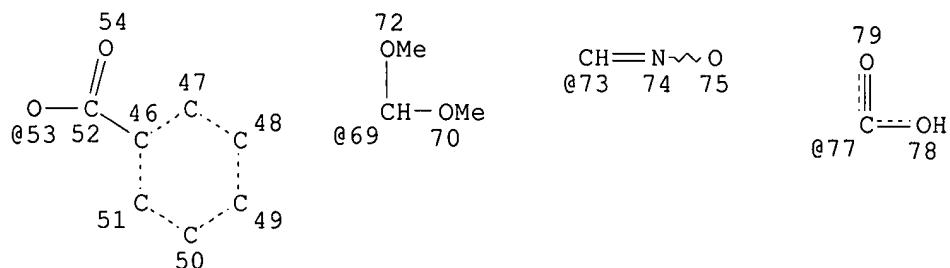
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DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
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NUMBER OF NODES IS 22

STEREO ATTRIBUTES: NONE
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L3 STR



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 REP G2=(0-1) AK
 VAR G3=OH/58/27/39/53
 VAR G4=ME/60/62/68/CHO/69/73/77
 VAR G5=ME/60/62/68/CHO/77
 VAR G6=ME/60/62/68/CHO/73/77
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 DEFAULT ECLEVEL IS LIMITED
 ECOUNT IS M1 O AT 42
 ECOUNT IS M1 O AT 45

GRAPH ATTRIBUTES:

RSPEC 32 47
 NUMBER OF NODES IS 77

STEREO ATTRIBUTES: NONE
 L4 2708 SEA FILE=REGISTRY SUB=L2 SSS FUL L3

100.0% PROCESSED 15164 ITERATIONS

2708 ANSWERS

SEARCH TIME: 00.00.01

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L6 8 S E4,E5
E VAN PUYVELDE/AU
L7 50 S E12-E14
E DE KIMPE N/AU
L8 442 S E3-E6
E DEKIMPE N/AU
E NGOC/AU
E NGOC N/AU
L9 4 S E4,E5,E14
E NINH/AU
L10 1 S E20
E TRAN N/AU
L11 43 S E3,E44
L12 3353 S JANSSEN?/PA,CS
L13 1272 S L4 AND (PY<=1998 OR PRY<=1998 OR AY<=1998)
L14 1 S L5-L12 AND L13
E MYRSINA/CT
E E4+ALL
L15 14 S E7
L16 1047 S E7+NT
L17 63 S E157+NT
L18 8 S E158
L19 10 S (M OR MAESA?) ()BALANS?
E MYRSINAC?
L20 307 S E1-E28
L21 57 S L13 AND L15-L20
E TRITERP/CT
L22 10764 S E8,E43,E82-E90
L23 828 S E104
E E8+ALL
L24 11571 S E10+OLD
E E8+ALL
L25 25874 S E8+OLD
L26 8782 S E120,E136
L27 59 S L15-L20 AND L22-L26
L28 109 S L15-L20 AND ?TRITERP?
L29 74 S L27,L28 AND (PY<=1998 OR PRY<=1998 OR AY<=1998)
L30 25 S L29 AND (MAES? OR MYRSIN?)

L31 7 S L30 AND MYRSIN?/CT
 L32 8 S L30 AND MAES?/CT
 L33 14 S L31,L32
 L34 11 S L30 NOT L33
 L35 3 S (104:165407 OR 89:56465 OR 44:10525) /DN
 L36 3 S L35 AND L15-L33
 L37 16 S L33,L36
 L38 49 S L29 NOT L30-L37
 L39 11 S L27 NOT L29-L38
 E LEISHMAN/CT
 L40 6636 S E4+OLD,NT
 L41 108 S E81+OLD,NT OR E8+OLD,NT OR E88
 E LEISHM
 L42 8963 S E2 OR LEISHM?
 L43 2 S L13 AND L40-L42
 L44 17 S L37,L14,L43
 L45 17 S L44 AND L5-L44
 SEL HIT RN

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 L52 9 S L48 AND L40-L42
 SEL DN AN L45
 L53 17 S E53-E103
 L54 9 S L53 AND L49-L52
 L55 11 S L35,L36,L54
 L56 19 S L47 (L) (BAC OR THU OR PAC OR PKT OR DMA OR COS)/RL AND L49
 L57 52 S L49 AND (PHARMACEUT? OR PHARMACOL? OR PATHOL? OR COSMETIC?)/S
 L58 3 S L49 AND (BIOMOL? OR IMMUN?)/SC,SX
 L59 3 S L55 AND L56-L58
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 L62 6 S L61 AND P/DT
 L63 17 S L60,L62
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This file contains CAS Registry Numbers for easy and accurate substance identification.

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L63 ANSWER 1 OF 17 HCAPLUS COPYRIGHT 2006 ACS on STN
 AN 2000:456899 HCAPLUS
 DN 133:71516
 TI Isolation of triterpene saponins from **Myrsinaceae** for treating leishmaniaes
 IN Maes, Louis Jules Roger Marie; Germonprez, Nils Albert
 Gilbert; Van Puyvelde, Luc Emiel Mathilde; Van Tri, Mai;
 Ngoc Ninh, Tran; De Kimpe, Norbert G. M.
 PA Janssen Pharmaceutica N.V., Belg.
 SO PCT Int. Appl., 28 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2000038700	A1	20000706	WO 1999-EP10177	19991215 <--
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JP 2003521463	T2	20030715	JP 2000-590652	19991215 <--
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ES 2224739	T3	20050301	ES 1999-965511	19991215 <--
US 6872713	B1	20050329	US 2001-868755	20010912
US 2004138151	A1	20040715	US 2004-752057	20040106 <--
PRAI EP 1998-204409	A	19981222	<--	
WO 1999-EP10177	W	19991215		
US 2001-868755	A3	20010912		
OS MARPAT 133:71516				
AB Triterpene saponins (I), a stereoisomeric form, or a pharmaceutically acceptable addition salt thereof are claimed where R1 = H, (CO)C1-5 alkyl, (CO)C2-5 alkenyl, (CO)C2-5 alkenyl substituted with Ph, a monosaccharide group, or an oligosaccharide group; R2, R3 = H, OH, (CO)C1-5 alkyl, (CO)C2-5 alkenyl, O(CO)C6H5, or (CO)C2-5 alkenyl substituted with Ph; R4 = H, C1-6 alkyl, (CO)C1-5 alkyl, (CO)C2-5 alkenyl, O(CO)C6H5, or (CO)C2-5				

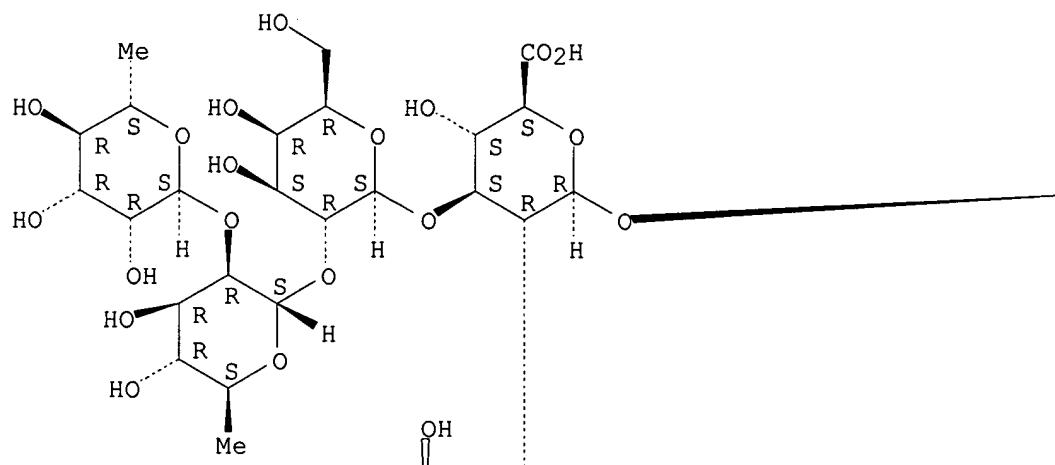
alkenyl substituted with Ph; R5 = CH3, CH2OH, CH2OCH3, CH2OC(O)CH3, CHO, COOH; or R5 and R2 form a divalent radical of formula C(O)O; R6 and R7 together are H, a bond; or R5 and R6 form a divalent radical of formula CH2O, CH(OR13)O, or C(O)O where R13 = H, C1-6 alkyl or (CO)C1-5 alkyl; R8 α , R8 β = CH3, CH2OH, CH2OCH3, CH2OC(O)C1-5 alkyl, CHO, CH(CH3)2, CHNOH, COOH; or R8 β and R3 together = C(O)O; or R8 β and R5 together = CH2OCHOH; R9, R10 = CH3, CH2OH, CH2OCH3, CH2OC(O)C1-5 alkyl, CHO, COOH; R11 = H, OH, OC(O)C1-5 alkyl; or R10 and R11 together = CH2O; and R12 = CH3, CH2OH, CH2OCH3, CH2OC(O)CH3, CHO, CHNOH, COOH. Members of I are isolated from plants of the **Myrsinaceae** family and are useful for decreasing the infectiousness of and reducing the mortality associated with protozoan parasites of the genus **Leishmania** which are responsible for a group of conditions known as **leishmaniases**.

IC ICM A61K0035-78
 ICS C07C0069-00; C07H0017-08
 CC 11-1 (Plant Biochemistry)
 Section cross-reference(s): 1, 63
 ST saponin triterpene **Myrsinaceae** treatment **leishmaniases**;
Leishmania infection treatment triterpene saponin
 IT Alcohols, uses
 RL: NUU (Other use, unclassified); USES (Uses)
 (extraction solvent; isolation of triterpene saponins from
Myrsinaceae for treating **leishmaniases**)
 IT **Leishmania**
Myrsinaceae
 (isolation of triterpene saponins from **Myrsinaceae** for
 treating **leishmaniases**)
 IT **Maesa balansae**
 (triterpene saponins from; isolation of triterpene saponins from
Myrsinaceae for treating **leishmaniases**)
 IT Saponins
 RL: PUR (Purification or recovery); THU (Therapeutic use); BIOL
 (Biological study); PREP (Preparation); USES (Uses)
 (triterpenoid; isolation of triterpene saponins from
Myrsinaceae for treating **leishmaniases**)
 IT Solvent extraction
 (with alcs.; isolation of triterpene saponins from **Myrsinaceae**
 for treating **leishmaniases**)
 IT 64-17-5, Ethanol, uses 67-56-1, Methanol, uses 67-63-0, Isopropanol,
 uses 75-05-8, Acetonitrile, uses 35296-72-1, Butanol
 RL: NUU (Other use, unclassified); USES (Uses)
 (extraction solvent; isolation of triterpene saponins from
Myrsinaceae for treating **leishmaniases**)
 IT 278792-43-1P 278792-44-2P 278792-45-3P
 278793-59-2P 278793-60-5P 278793-61-6P
 RL: PUR (Purification or recovery); THU (Therapeutic use); BIOL
 (Biological study); PREP (Preparation); USES (Uses)
 (isolation of triterpene saponins from **Myrsinaceae** for
 treating **leishmaniases**)
 IT 278792-43-1P 278792-44-2P 278792-45-3P
 278793-59-2P 278793-60-5P 278793-61-6P
 RL: PUR (Purification or recovery); THU (Therapeutic use); BIOL
 (Biological study); PREP (Preparation); USES (Uses)
 (isolation of triterpene saponins from **Myrsinaceae** for
 treating **leishmaniases**)
 RN 278792-43-1 HCAPLUS
 CN β -D-Glucopyranosiduronic acid, (3 β ,16 α ,21 β ,22 α ,
 28S)-21-(benzoyloxy)-13,28-epoxy-16,28-dihydroxy-22-[(2Z)-1-oxo-3-phenyl-
 2-propenyl]oxyoleanan-3-yl O-6-deoxy- α -L-mannopyranosyl-

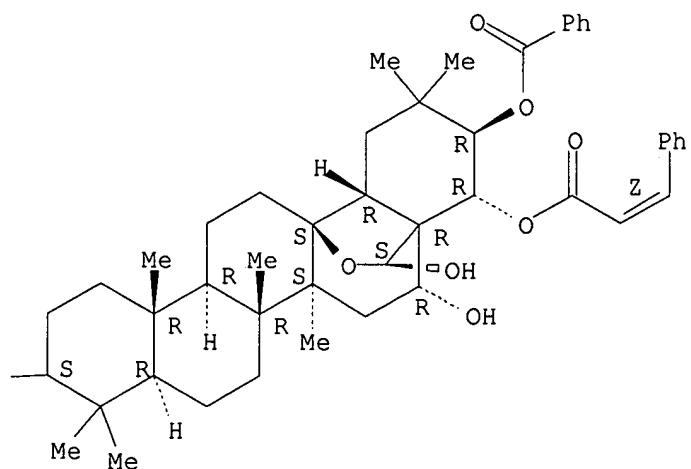
(1 \rightarrow 2)-O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O- β -D-galactopyranosyl-(1 \rightarrow 3)-O-[β -D-galactopyranosyl-(1 \rightarrow 2)]-(9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.

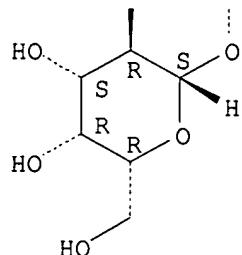
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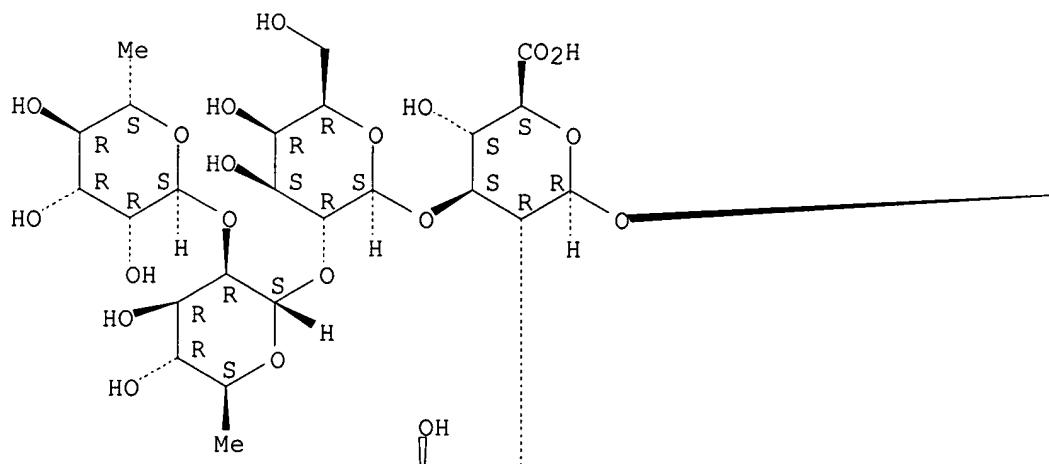
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 2-propenyl]oxy]oleanan-3-yl O-6-deoxy- α -L-mannopyranosyl-
 (1 \rightarrow 2)-O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O- β -D-
 galactopyranosyl-(1 \rightarrow 3)-O-[β -D-galactopyranosyl-(1 \rightarrow 2)]-
 (9CI) (CA INDEX NAME)

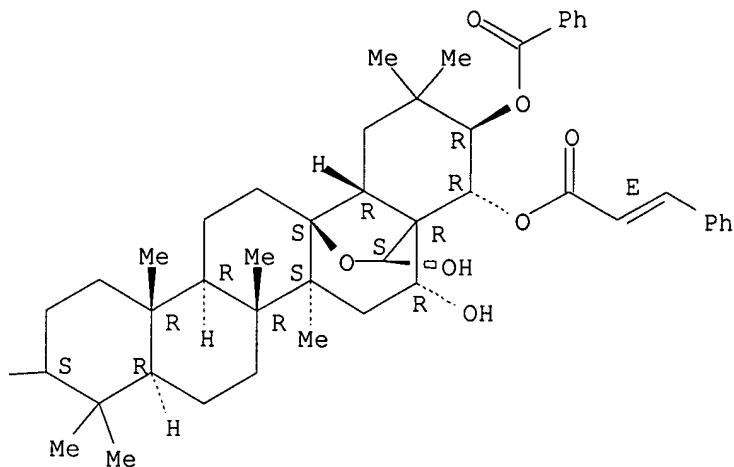
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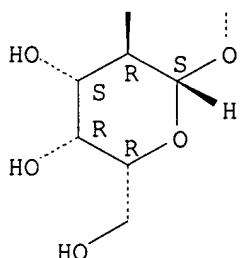
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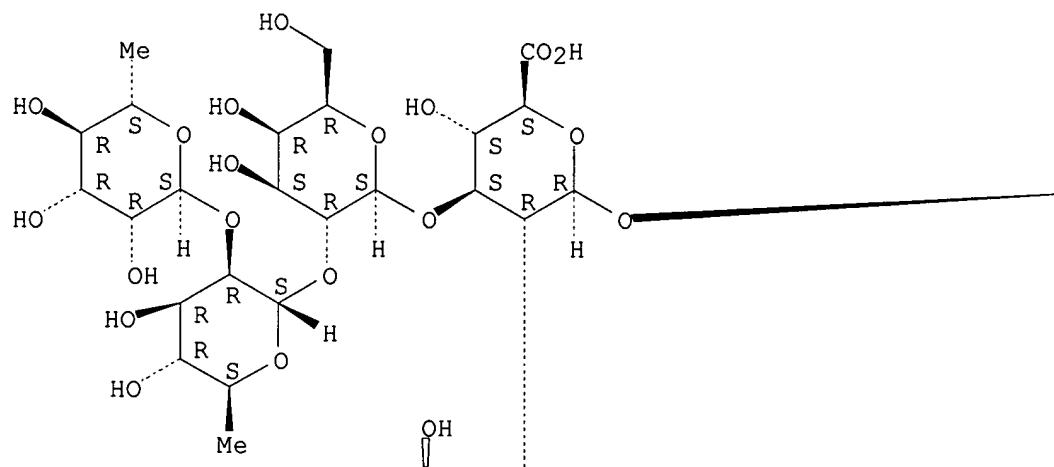


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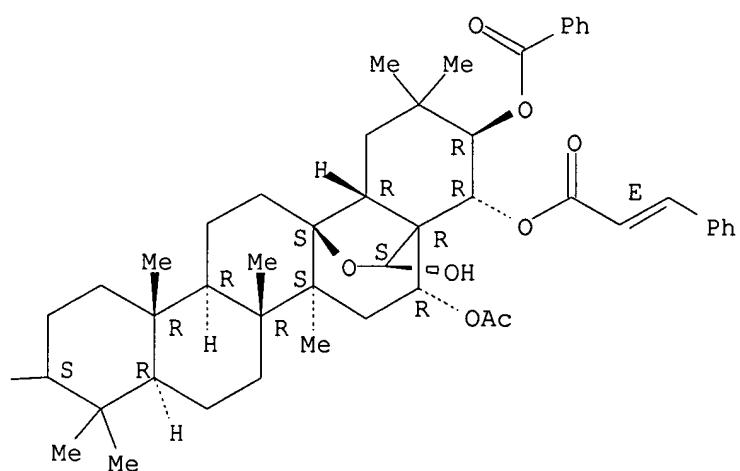
CN β -D-Glucopyranosiduronic acid, (3 β ,16 α ,21 β ,22 α ,
 28S)-16-(acetyloxy)-21-(benzyloxy)-13,28-epoxy-28-hydroxy-22-[(2E)-1-oxo-
 3-phenyl-2-propenyl]oxy]oleanan-3-yl O-6-deoxy- α -L-mannopyranosyl-
 (1 \rightarrow 2)-O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O- β -D-
 galactopyranosyl-(1 \rightarrow 3)-O-[β -D-galactopyranosyl-(1 \rightarrow 2)]-
 (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).
 Double bond geometry as shown.

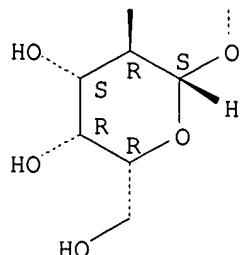
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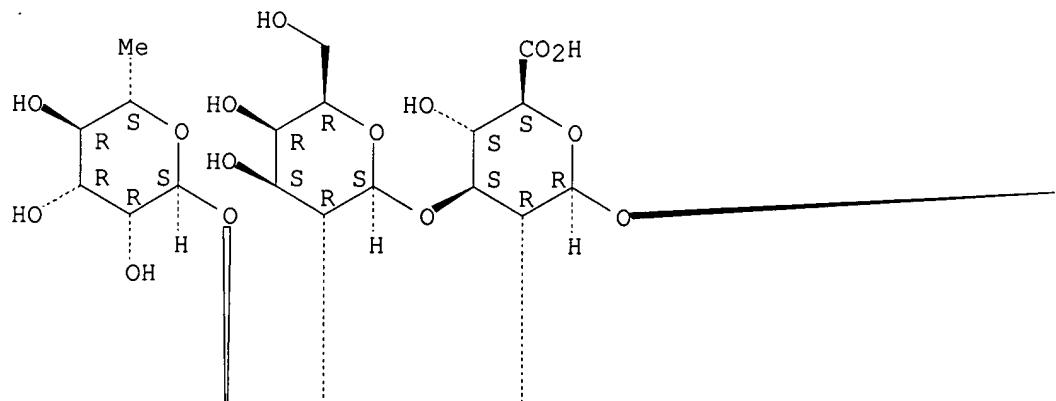
RN 278793-59-2 HCPLUS

CN β -D-Glucopyranosiduronic acid, (3 β ,16 α ,21 β ,22 α ,
 28S)-13,28-epoxy-16,28-dihydroxy-21-[(2E)-2-methyl-1-oxo-2-but enyl]oxy]-
 22-[(2Z)-1-oxo-3-phenyl-2-propenyl]oxy]oleanan-3-yl 0-6-deoxy- α -L-
 mannopyranosyl-(1 \rightarrow 2)-O-6-deoxy- α -L-mannopyranosyl-
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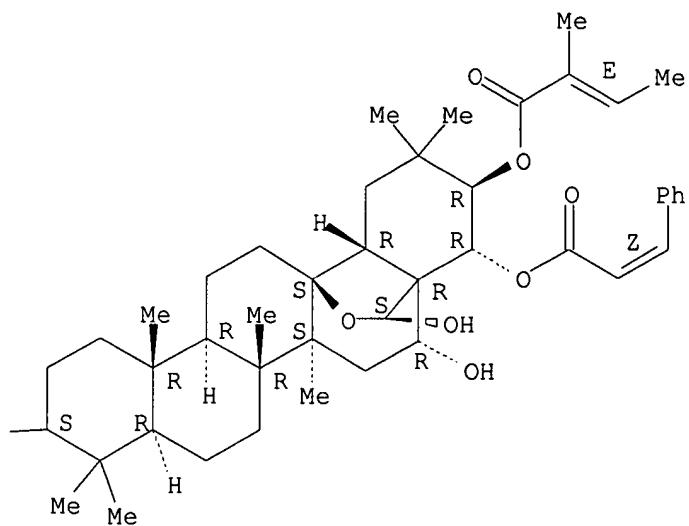
Absolute stereochemistry.

Double bond geometry as shown.

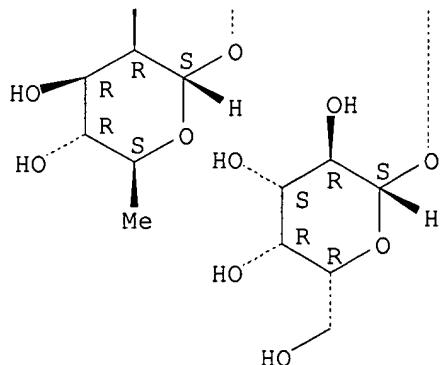
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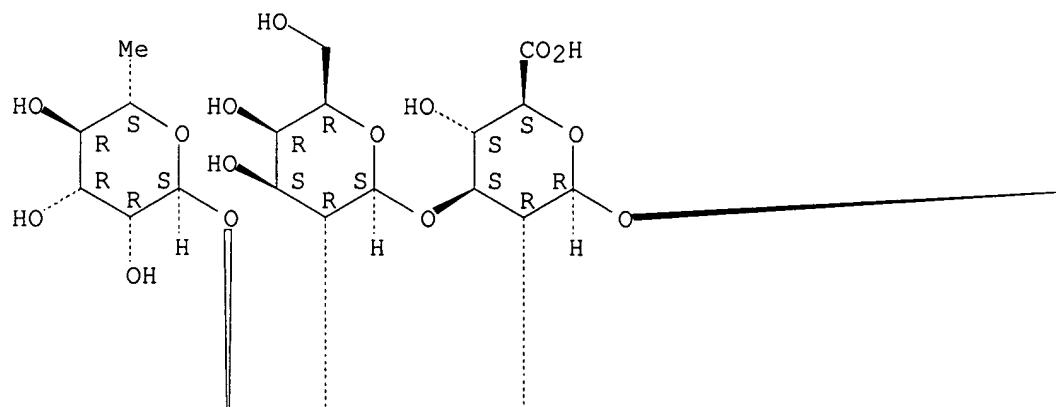
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CN β -D-Glucopyranosiduronic acid, (3 β ,16 α ,21 β ,22 α ,28S)-13,28-epoxy-16,28-dihydroxy-21-[(2E)-2-methyl-1-oxo-2-butenyl]oxy]-22-[(2E)-1-oxo-3-phenyl-2-propenyl]oxy]oleanan-3-yl 0-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O- β -D-galactopyranosyl-(1 \rightarrow 3)-O-[β -D-galactopyranosyl-(1 \rightarrow 2)]- (9CI) (CA INDEX NAME)

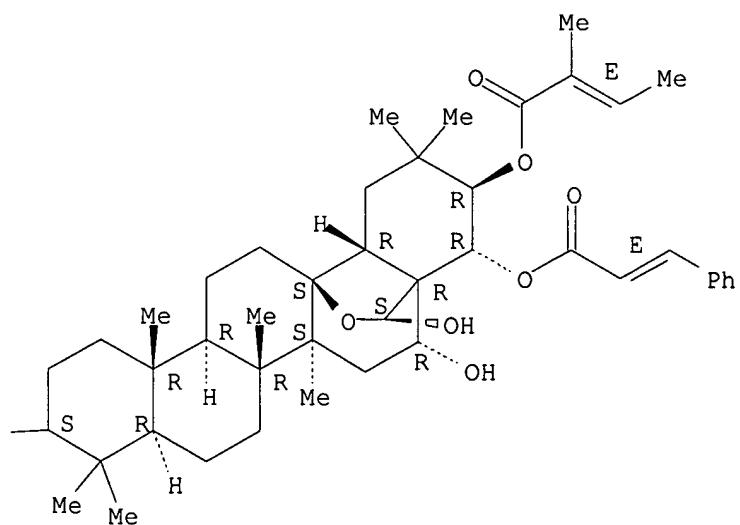
Absolute stereochemistry.

Double bond geometry as shown.

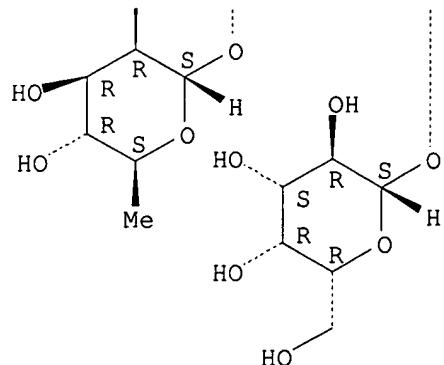
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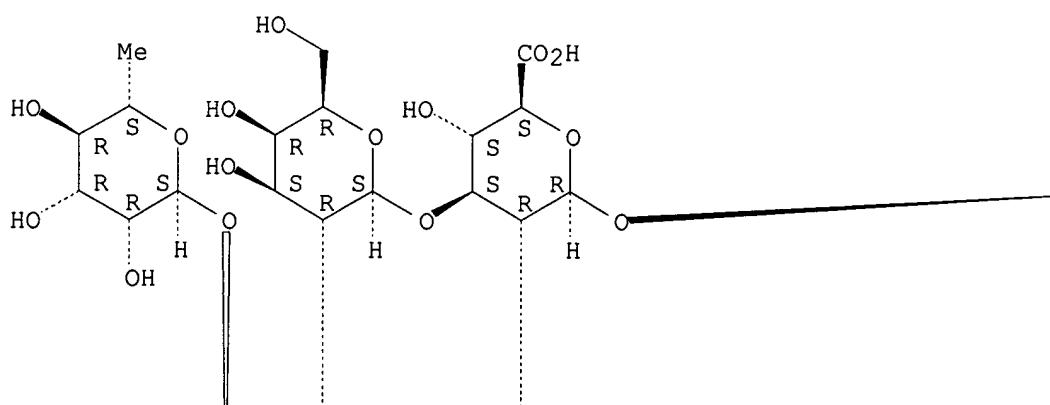
RN 278793-61-6 HCPLUS

CN β -D-Glucopyranosiduronic acid, (3 β ,16 α ,21 β ,22 α ,
 28S)-16-(acetyloxy)-13,28-epoxy-28-hydroxy-21-[(2E)-2-methyl-1-oxo-2-
 butenyl]oxy]-22-[(2E)-1-oxo-3-phenyl-2-propenyl]oxy]oleanan-3-yl
 O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-6-deoxy- α -L-
 mannopyranosyl-(1 \rightarrow 2)-O- β -D-galactopyranosyl-(1 \rightarrow 3)-O-
 [β -D-galactopyranosyl-(1 \rightarrow 2)]- (9CI) (CA INDEX NAME)

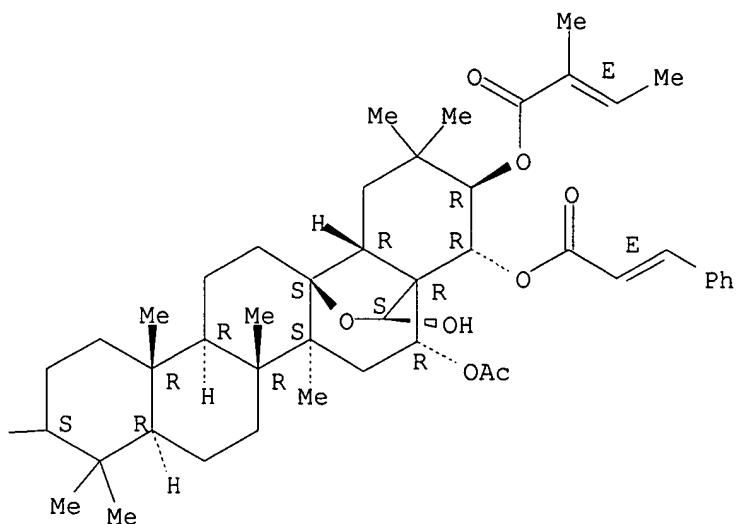
Absolute stereochemistry.

Double bond geometry as shown.

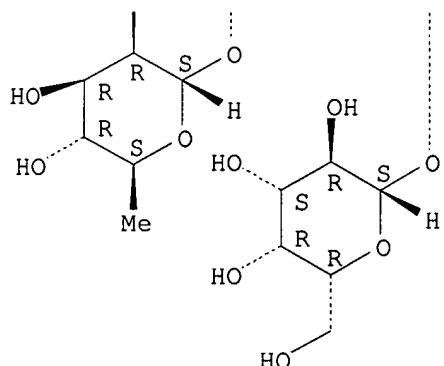
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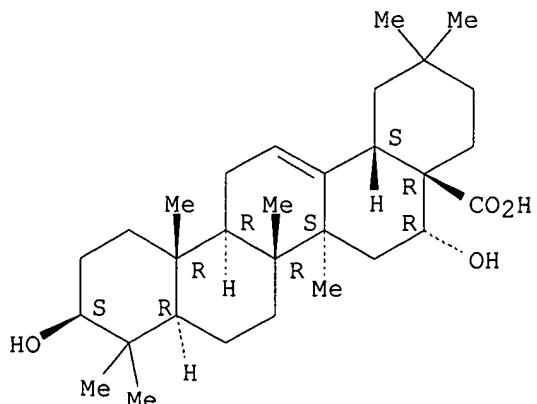
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Referenced Author (RAU)	Year (R PY)	VOL (R VL)	PG (R PG)	Referenced Work (R WK)	Referenced File
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Jean, B	1996	41	1269	PHYTOCHEMISTRY	
Sindambiwe, J	1998	61	1585	JOURNAL OF NATURAL P	HCAPLUS

L63 ANSWER 2 OF 17 HCAPLUS COPYRIGHT 2006 ACS on STN
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 DN 133:88233
 TI Inhibitors of leaderless protein export
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 PA Ciblex Corporation, USA
 SO U.S., 64 pp., Cont.-in-part of U.S. Ser. No. 807,014.
 CODEN: USXXAM
 DT Patent
 LA English
 FAN.CNT 3

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 6083706	A	20000704	US 1998-30613	19980225 <--
US 6306613	B1	20011023	US 1999-451905	19991201 <--
PRAI US 1997-807014	A2	19970226 <--		
US 1998-30613	A2	19980225 <--		
AB Methods of inhibiting the export of a leaderless protein from a cell by contacting the cell with a compound that inhibits the binding of the leaderless protein and a transport mol. are provided. Leaderless proteins include FGF-1, FGF-2, IL-1 α , IL-1 β , CNTF and HIV-tat; and the transport mol. is selected from a group of ion channels consisting of Ca $^{+}$ ATPase, H $^{+}$ /Na $^{+}$ ATPase, Na $^{+}$ channel, Cl $^{-}$ channel and k $^{+}$ channel. These methods are useful in treatment of various conditions, including angiogenesis, restenosis, tumors and diabetes.				
IC ICM G01N0033-53				
ICS A01N0043-04; A01N0045-00; C12N0009-99; C07K0001-00				
INCL 435007100				
CC 15-5 (Immunochemistry)				
Section cross-reference(s): 1, 2, 3, 9				
IT 69-05-6, Atebrine 510-30-5, Echinocystic acid 2143-98-8				
52535-73-6 127109-37-9 212624-75-4 212624-76-5 212624-78-7				
212624-79-8 212624-81-2				
RL: ANT (Analyte); BSU (Biological study, unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)				
(inhibitors of leaderless protein export for treating tumor and diabetes)				
IT 510-30-5, Echinocystic acid				
RL: ANT (Analyte); BSU (Biological study, unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)				
(inhibitors of leaderless protein export for treating tumor and diabetes)				
RN 510-30-5 HCPLUS				
CN Olean-12-en-28-oic acid, 3,16-dihydroxy-, (3 β ,16 α)- (9CI) (CA INDEX NAME)				

Absolute stereochemistry. Rotation (+).



RETABLE

Referenced Author (RAU)	Year (R PY)	VOL (R VL)	PG (R PG)	Referenced Work (RWK)	Referenced File
----------------------------	----------------	---------------	--------------	--------------------------	-----------------

Anon		1992			WO 9216226	HCAPLUS
Anon		1993			WO 9309135	HCAPLUS
Anon		1996			WO 9604921	HCAPLUS
Anon		1997			WO 9728808	HCAPLUS
Barinaga		1996	272	1261	Science	HCAPLUS
Bost		1995	14	4412	The EMBO Journal	HCAPLUS
Detomaso		1994	127	55	The Journal of Cell	HCAPLUS
Florkiewicz		1999			US 5891855	HCAPLUS
Florkiewicz		1997	11	A1066	FASEB Journal	
Florkiewicz		1995	162	388	Journal of Cellular	HCAPLUS
Florkiewicz		1996	7	186a	Molecular Biology of	
Florkiewicz		1998	273	544	The Journal of Biol	HCAPLUS
Goldstein		1996	1	960	Nature Medicine	
Hamon		1997	90	2911	Blood	HCAPLUS
Harlow		1988		421	Antibodies	
Jackson		1995	270	33	The Journal of Biol	HCAPLUS
Jarvis		1995	92	7996	Proc Natl Acad Sci U	HCAPLUS
Jerse		1990	87	7839	Proc Natl Acad Sci U	HCAPLUS
Kaelin		1991	64	521	Cell	HCAPLUS
Kenny		1995	92	7991	Proc Natl Acad Sci U	HCAPLUS
Kent		1987	237	901	Science	MEDLINE
Ku		1990			US 4975467	HCAPLUS
Levenson		1994	123	1	Rev Physiol Biochem	HCAPLUS
Lewis		1994	19	119	TIBS	HCAPLUS
Matsumori		1996			US 5545623	HCAPLUS
McDaniel		1995	92	1664	Proc Natl Acad Sci U	HCAPLUS
Mignatti		1992	151	81	Journal of Cellular	HCAPLUS
Neyfakh		1991	88	4781	Proc Natl Acad Sci U	MEDLINE
Nilsson		1992	2	569	Current opinion in s	HCAPLUS
Rubartell		1992	267	24161	The Journal Of Biol	
Rubartelli		1990	9	1503	The EMBO Journal	HCAPLUS
Russel		1994	265	612	Science	MEDLINE
Salmond		1993	18	17	TIBS	HCAPLUS

L63 ANSWER 3 OF 17 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1998:603240 HCAPLUS

DN 129:225748

TI Inhibitors of leaderless protein export, and therapeutic use thereof

IN Florkiewicz, Robert Z.; Baird, Andrew

PA Ciblex Corp., USA

SO PCT Int. Appl., 117 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9837880	A1	19980903	WO 1998-US3689	19980225 <--
W:	AL, AM, AT, AU, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW:	GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
CA	2281925	AA	19980903	CA 1998-2281925	19980225 <--
AU	9863391	A1	19980918	AU 1998-63391	19980225 <--
EP	1011655	A1	20000628	EP 1998-907634	19980225 <--
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,				

IE, FI
 JP 2001527390 T2 20011225 JP 1998-537817 19980225 <--
 MX 9907926 A 20000731 MX 1999-7926 19990826 <--
 PRAI US 1997-807014 A 19970226 <--
 WO 1998-US3689 W 19980225 <--

AB Methods are provided for inhibiting the export of a leaderless protein from a cell by contacting the cell with a compound that inhibits the binding of the leaderless protein and a transport mol. Leaderless proteins include FGF-1, FGF-2, IL-1 α , IL-1 β , CNTF and HIV-tat. These methods are useful in treatment of various conditions, including tumors and diabetes.

IC ICM A61K0031-18
 ICS A61K0031-645; A61K0031-19; A61K0031-165; A61K0031-38; A61K0031-15;
 A61K0031-52; A61K0031-27; A61K0031-215

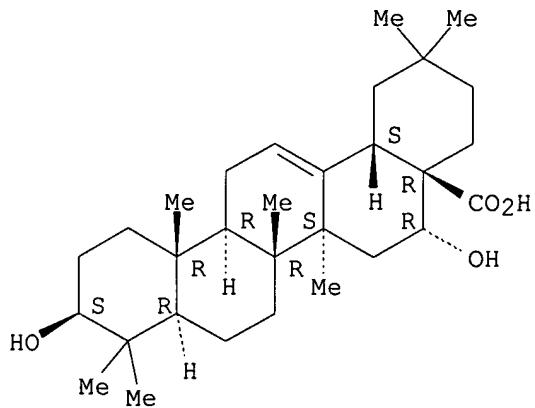
CC 1-12 (Pharmacology)

IT 69-05-6, Atebrine 69-05-6D, Atebrine, derivs. 510-30-5,
 Echinocystic acid 510-30-5D, Echinocystic acid, derivs.
 2143-98-8 2143-98-8D, derivs. 52535-73-6 52535-73-6D, derivs.
 127109-37-9 127109-37-9D, derivs. 212624-75-4 212624-75-4D, derivs.
 212624-76-5 212624-76-5D, derivs. 212624-78-7 212624-78-7D, derivs.
 212624-79-8 212624-79-8D, derivs. 212624-81-2 212624-81-2D, derivs.
 RL: BAC (Biological activity or effector, except adverse); BSU
 (Biological study, unclassified); THU (Therapeutic use); BIOL
 (Biological study); USES (Uses)
 (leaderless protein export inhibitors, and therapeutic use thereof)

IT 510-30-5, Echinocystic acid 510-30-5D, Echinocystic acid, derivs.
 RL: BAC (Biological activity or effector, except adverse); BSU
 (Biological study, unclassified); THU (Therapeutic use); BIOL
 (Biological study); USES (Uses)
 (leaderless protein export inhibitors, and therapeutic use thereof)

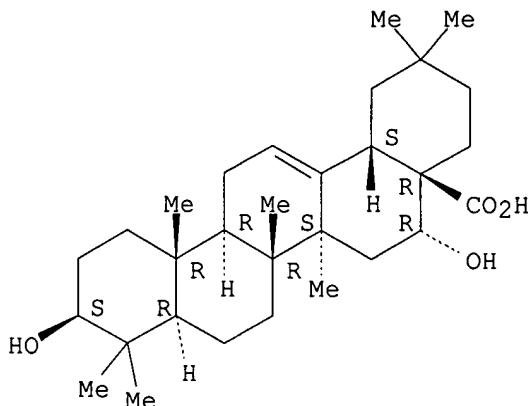
RN 510-30-5 HCPLUS
 CN Olean-12-en-28-oic acid, 3,16-dihydroxy-, (3 β ,16 α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



RN 510-30-5 HCPLUS
 CN Olean-12-en-28-oic acid, 3,16-dihydroxy-, (3 β ,16 α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



RETABLE

Referenced Author (RAU)	Year (R PY)	VOL (R VL)	PG (R PG)	Referenced Work (R WK)	Referenced File
Chung, H	1996			WO 9604921 A	HCAPLUS
Florkiewicz, R	1997	11	A1066	FASEB JOURNAL	
Florkiewicz, R	1998	273	544	J BIOL CHEM	HCAPLUS
Florkiewicz, R	1995	162	388	J CELL PHYSIOL	HCAPLUS
Florkiewicz, R	1996	7	186a	MOLECULAR BIOLOGY OF	
Hamon, Y	1997	90	2911	BLOOD	HCAPLUS
Matsumori, A	1996			US 5545623 A	HCAPLUS
The Scripps Research In	1997			WO 9728808 A	HCAPLUS

L63 ANSWER 4 OF 17 HCAPLUS COPYRIGHT 2006 ACS on STN

DN 126:222807

TI A triterpenoid saponin from *Maesa ramentacea*

AU Tuntiwachwuttikul, Pittaya; Pancharoen, Orasa; Mahubusarakam, Wilawan; Wiriyachitra, Pichaet; Taylor, Walter C.; Bubb, William A.; Towers, G. H. N.

CS Faculty Science, Silpakorn Univ., Nakorn Pathom, 73000, Thailand

SO Phytochemistry (1997), 44(3), 491-495

CODEN: PYTCAS; ISSN: 0031-9422

PB Elsevier

DT Journal

LA English

GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The structure of a piscicidal triterpenoid saponin (saponin A) isolated from the leaves of *Maesa ramentacea* has been shown to be (I: R = angeloyl). Extensive use was made of homo- and heteronuclear 2D NMR techniques.

CC 11-1 (Plant Biochemistry)

Section cross-reference(s): 30, 33

IT *Maesa ramentacea*

(triterpenoid saponin from)

IT 13844-01-4P, Barringtonol C 14694-67-8P

Barringtogenol C pentaacetate 92947-99-4P, 21,22-

Diangeloylbarringtogenol C 188294-94-2P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and properties of)

IT 188294-92-0P

RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)
(triterpenoid saponin from *Maesa ramentacea*)

IT 13844-01-4P, Barringtogenol C 14694-67-8P,

Barringtogenol C pentaacetate 92947-99-4P, 21,22-

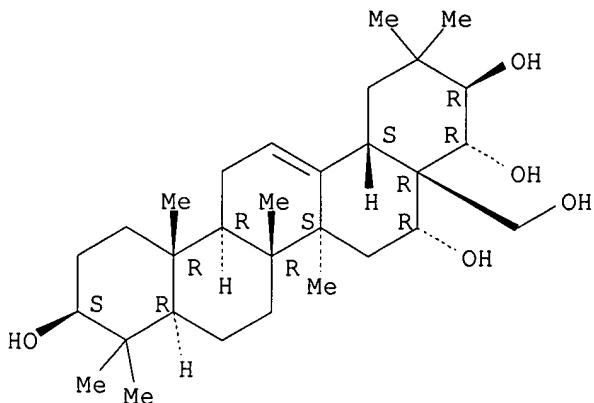
Diangeloylbarringtogenol C

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and properties of)

RN 13844-01-4 HCPLUS

CN Olean-12-ene-3,16,21,22,28-pentol, (3 β ,16 α ,21 β ,22 α)-
(9CI) (CA INDEX NAME)

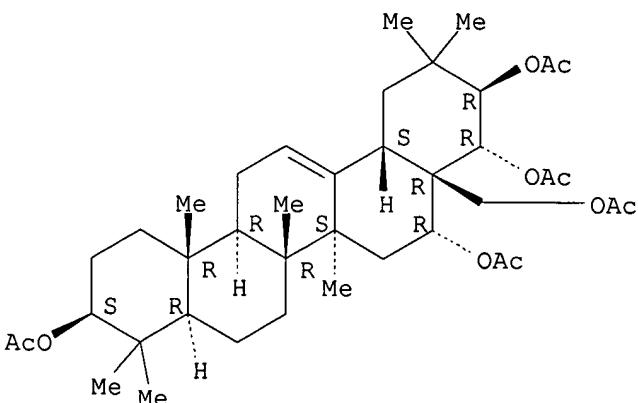
Absolute stereochemistry.



RN 14694-67-8 HCPLUS

CN Olean-12-ene-3,16,21,22,28-pentol, pentaacetate,
(3 β ,16 α ,21 β ,22 α)- (9CI) (CA INDEX NAME)

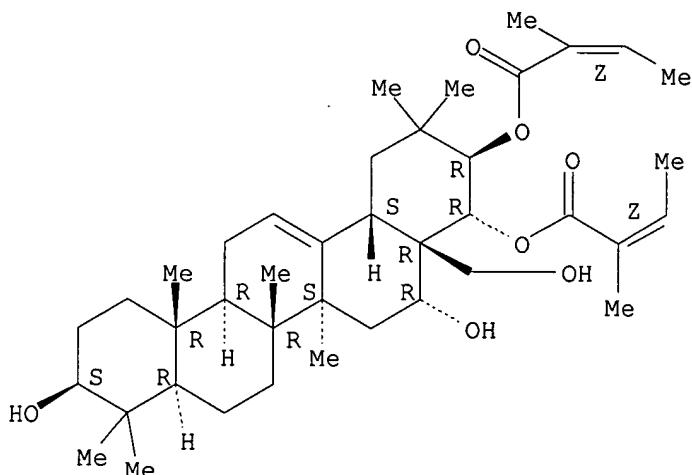
Absolute stereochemistry.



RN 92947-99-4 HCPLUS

CN Olean-12-ene-3,16,21,22,28-pentol, 21,22-bis[(2Z)-2-methyl-2-butenoate],
(3 β ,16 α ,21 β ,22 α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).
Double bond geometry as shown.



IT 188294-92-0P

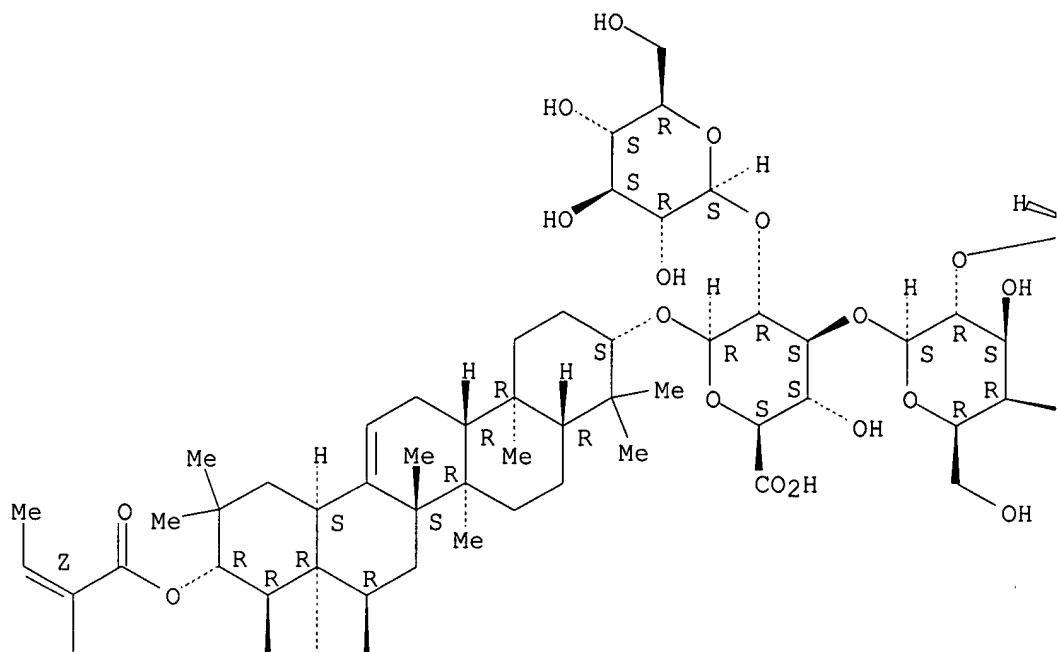
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)
(triterpenoid saponin from *Maesa ramentacea*)

RN 188294-92-0 HCAPLUS

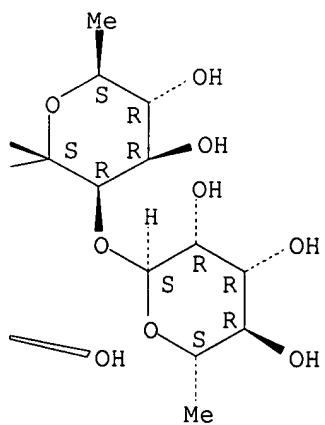
CN β -D-Glucopyranosiduronic acid, (3 β ,16 α ,21 β ,22 α)-16,28-dihydroxy-21,22-bis[(2Z)-2-methyl-1-oxo-2-butenoyl]oxy]olean-12-en-3-yl O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O- β -D-galactopyranosyl-(1 \rightarrow 3)-O-[β -D-glucopyranosyl-(1 \rightarrow 2)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.

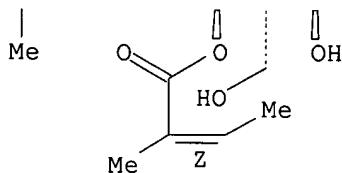
PAGE 1-A



PAGE 1-B



PAGE 2-A



L63 ANSWER 5 OF 17 HCAPLUS COPYRIGHT 2006 ACS on STN
 AN 1995:456102 HCAPLUS
 DN 122:235284
 TI Triterpene saponins from **Myrsine** pellucida
 AU Lavaud, Catherine; Massiot, Georges; Barrera, Jose Bravo; Moretti, Christian; Le Men-Olivier, Louisette
 CS Laboratorio de Farmacognosia, ORSTOM-IBBA, La Paz, CP 717, Bolivia
 SO Phytochemistry (1994), 37(6), 1671-7
 CODEN: PYTCAS; ISSN: 0031-9422
 PB Elsevier
 DT Journal
 LA English
 AB Quercitol, five saponins and 3-O-(6'-O-palmitoyl) β -D-glucopyranosyl stigmasterol were isolated from the stem bark of **Myrsine** pellucida. These compds. are described for the first time in this plant and their structures were determined using a combination of 1H and 13C NMR, and mass spectroscopy. The two saponins are new compds., 3-O-(α -L-rhamnopyranosyl (1 \rightarrow 2) β -D-glucopyranosyl (1 \rightarrow 4) α -L-arabinopyranosyl) cyclamiretin A and 3-O-(β -D-xylopyranosyl (1 \rightarrow 2) β -D-glucopyranosyl (1 \rightarrow 4) [β -D-glucopyranosyl (1 \rightarrow 2)] α -L-arabinopyranosyl) cyclamiretin D.
 CC 11-1 (Plant Biochemistry)
 Section cross-reference(s): 30
 ST triterpene saponin **Myrsine**
 IT **Myrsine** pellucida
 (triterpene saponins from **Myrsine** pellucida)
 IT Triterpenes and Triterpenoids
 RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)
 (saponins, triterpene saponins from **Myrsine** pellucida)
 IT Saponins
 RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)
 (triterpenoid, triterpene saponins from **Myrsine** pellucida)
 IT 162229-90-5
 RL: PRP (Properties)
 (structure and NMR spectra of)
 IT 23643-61-0, Saxifragifolin B 59252-96-9 62076-18-0
 112766-96-8, Ardisiacrispin B 113558-16-0, Primulanin
 RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)
 (triterpene saponins from **Myrsine** pellucida)
 IT 162229-91-6P 162229-92-7P
 RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)
 (triterpene saponins from **Myrsine** pellucida)

IT 162229-90-5

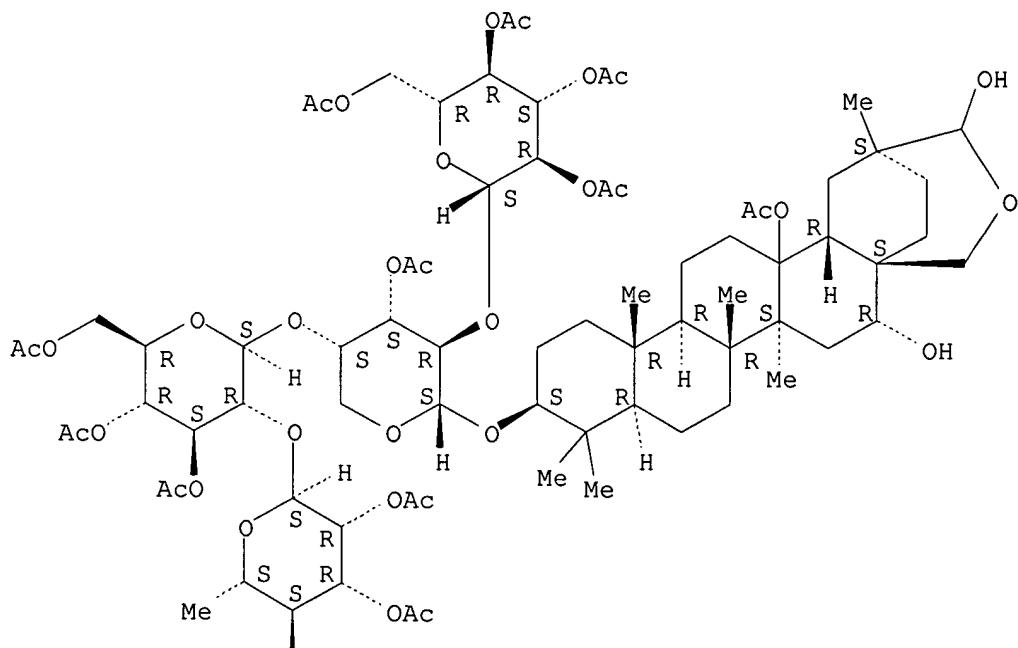
RL: PRP (Properties)
(structure and NMR spectra of)

RN 162229-90-5 HCPLUS

CN Oleanane-13,16,29-triol, 28,29-epoxy-3-[(O-2,3,4,6-tetra-O-acetyl- β -D-glucopyranosyl-(1 \rightarrow 2)-O-[O-2,3,4-tri-O-acetyl-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-3,4,6-tri-O-acetyl- β -D-glucopyranosyl-(1 \rightarrow 4)]-3-O-acetyl- α -L-arabinopyranosyl)oxy]-, (3 β ,13 ξ ,16 α ,20 β)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

PAGE 1-A



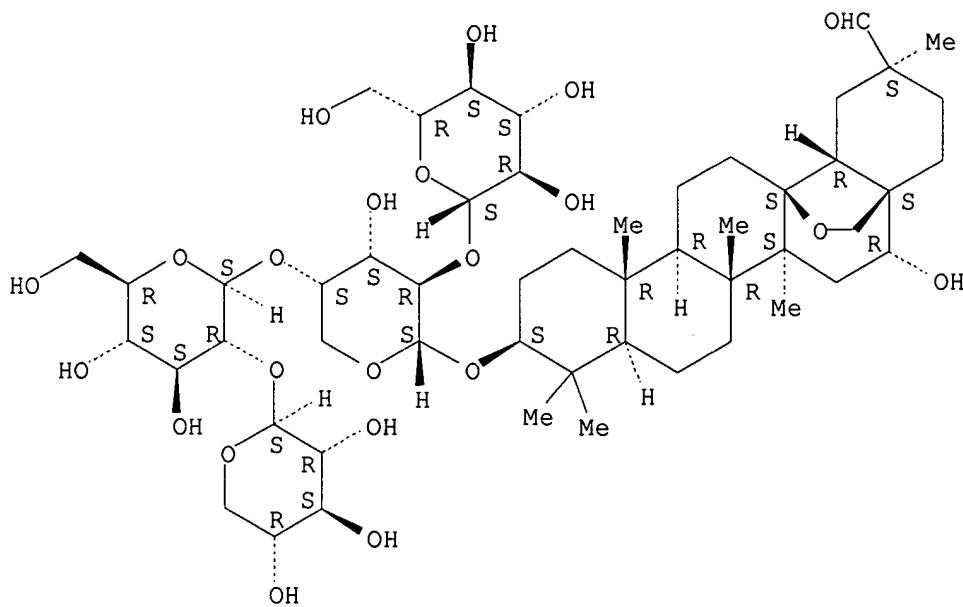
PAGE 2-A

IT 23643-61-0, Saxifragifolin B 112766-96-8, Ardisiacrispin
B 113558-16-0, PrimulaninRL: BOC (Biological occurrence); BSU (Biological study, unclassified);
BIOL (Biological study); OCCU (Occurrence)
(triterpene saponins from **Myrsine pellucida**)

RN 23643-61-0 HCPLUS

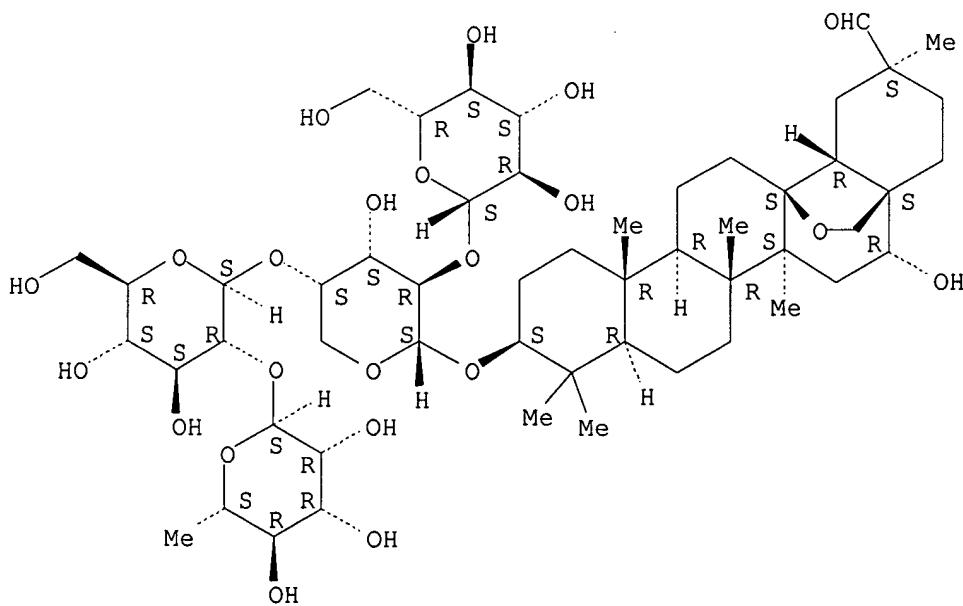
CN Oleanan-29-al, 13,28-epoxy-3-[(O- β -D-glucopyranosyl-(1 \rightarrow 2)-O-[O- β -D-xylopyranosyl-(1 \rightarrow 2)- β -D-glucopyranosyl-(1 \rightarrow 4)]- α -L-arabinopyranosyl)oxy]-16-hydroxy-, (3 β ,16 α ,20 β)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

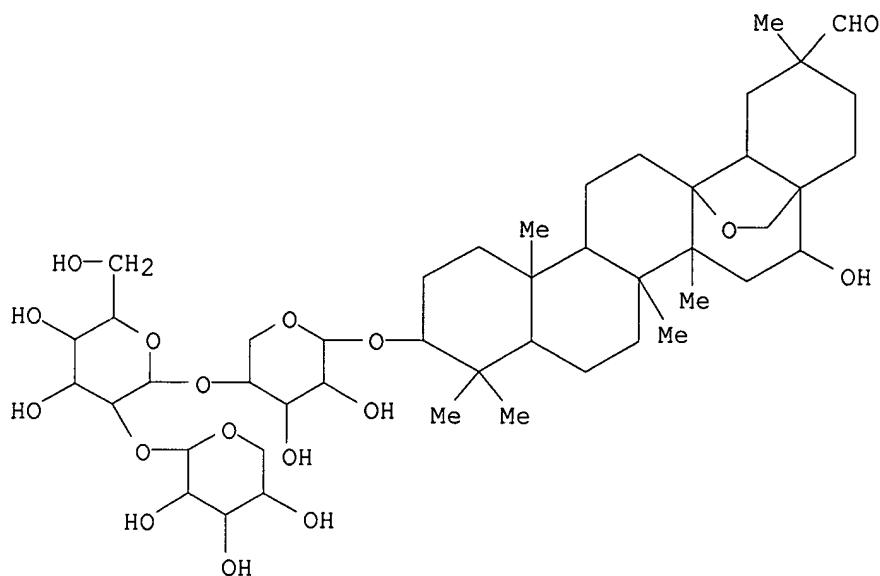


RN 112766-96-8 HCAPLUS
 CN Oleanan-29-al, 3-[(O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O- β -D-glucopyranosyl-(1 \rightarrow 4)-O-[β -D-glucopyranosyl-(1 \rightarrow 2)]- α -L-arabinopyranosyl)oxy]-13,28-epoxy-16-hydroxy-, (3 β ,16 α ,20 β)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 113558-16-0 HCAPLUS
 CN Oleanan-29-al, 13,28-epoxy-16-hydroxy-3-[(O- β -D-xylopyranosyl-(1 \rightarrow 2)-O- β -D-glucopyranosyl-(1 \rightarrow 4)- α -L-arabinopyranosyl)oxy]-, (3 β ,16 α ,20 β)- (9CI) (CA INDEX NAME)



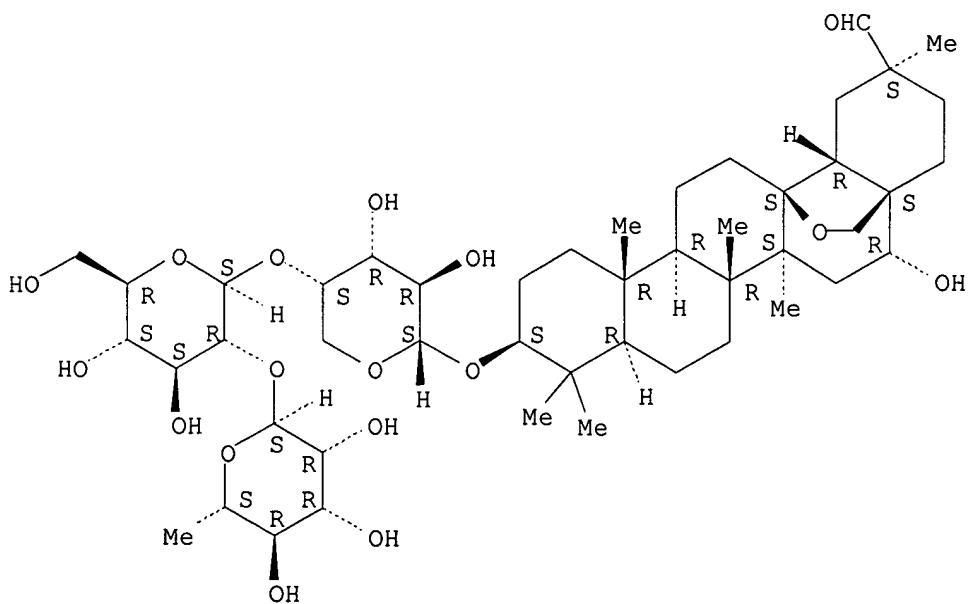
IT 162229-91-6P

RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)
 (triterpene saponins from *Myrsine pellucida*)

RN 162229-91-6 HCPLUS

CN Oleanan-29-ol, 3-[(O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O- β -D-glucopyranosyl-(1 \rightarrow 4)- α -L-arabinopyranosyl)oxy]-13,28-epoxy-16-hydroxy-, (3 β ,16 α ,20 β)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



L63 ANSWER 6 OF 17 HCPLUS COPYRIGHT 2006 ACS on STN

jan delaval - 16 august 2006

AN 1995:228133 HCPLUS
 DN 122:76634
 TI Cytotoxic saponins from New Zealand **Myrsine** species
 AU Bloor, Stephen J.; Qi, Lu
 CS Ind. Res. Ltd., Lower Hutt, 310, N. Z.
 SO Journal of Natural Products (1994), 57(10), 1354-60
 CODEN: JNPRDF; ISSN: 0163-3864
 PB American Chemical Society
 DT Journal
 LA English
 AB The observed biol. activity in two New Zealand **Myrsine** species has been shown to be due to the presence of triterpene saponins. From **Myrsine australis**, a series of eight oleanane-type saponins was obtained, with six compds. being novel. Also isolated were ardisiacrispin A and ardisiacrispin B. The structures of the new compds. were determined by chemical and spectroscopic techniques. Exts. of **Myrsine salicina** yielded only one saponin, ardisiacrispin A. All of the isolated saponins were shown to be combinations of four oleanane triterpenes bonded to β -D-xylp(1 \rightarrow 2)- β -D-glcp(1 \rightarrow 4)-[β -D-glcp(1 \rightarrow 2)]- α -L-arap or this same tetrasaccharide with α -L-rhap replacing the β -D-xylp unit.
 CC 11-1 (Plant Biochemistry)
 Section cross-reference(s): 1, 30, 33
 ST **Myrsine** triterpene saponin antiviral antitumor activity; cytotoxic triterpene saponin **Myrsine**
 IT **Myrsine australis**
 Myrsine salicina
 Virucides and Virustats
 (cytotoxic saponins from New Zealand **Myrsine** species)
 IT Neoplasm inhibitors
 (leukemia, cytotoxic saponins from New Zealand **Myrsine** species)
 IT Triterpenes and Triterpenoids
 RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); USES (Uses)
 (saponins, cytotoxic saponins from New Zealand **Myrsine** species)
 IT Saponins
 RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); USES (Uses)
 (triterpenoid, cytotoxic saponins from New Zealand **Myrsine** species)
 IT 126882-54-0P 160517-91-9P 160517-93-1P
 160517-94-2P 160517-95-3P 160517-96-4P
 RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); USES (Uses)
 (cytotoxic saponins from New Zealand **Myrsine** species)
 IT 23643-61-0, Ardisiacrispin A 112766-96-8, Ardisiacrispin B
 RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)

(cytotoxic saponins from New Zealand **Myrsine** species)

IT 126882-54-0P 160517-91-9P 160517-93-1P
 160517-94-2P 160517-95-3P 160517-96-4P

RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); USES (Uses)

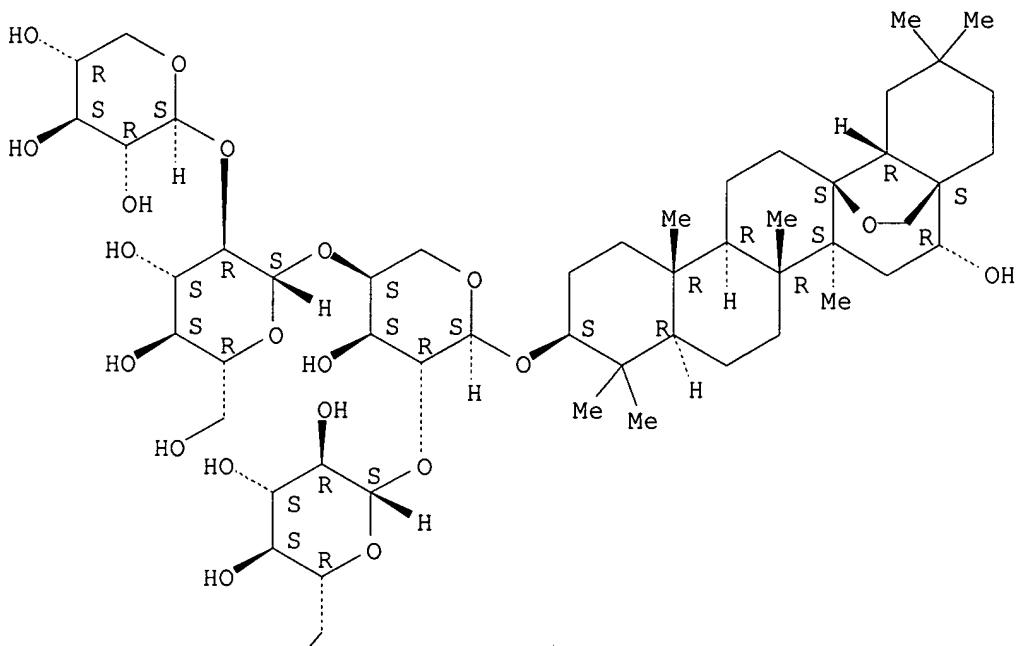
(cytotoxic saponins from New Zealand **Myrsine** species)

RN 126882-54-0 HCAPLUS

CN α -L-Arabinopyranoside, (3 β ,16 α)-13,28-epoxy-16-hydroxyoleanan-3-yl O- β -D-glucopyranosyl-(1 \rightarrow 2)-O-[O- β -D-xylopyranosyl-(1 \rightarrow 2)- β -D-glucopyranosyl-(1 \rightarrow 4)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

PAGE 1-A



PAGE 2-A

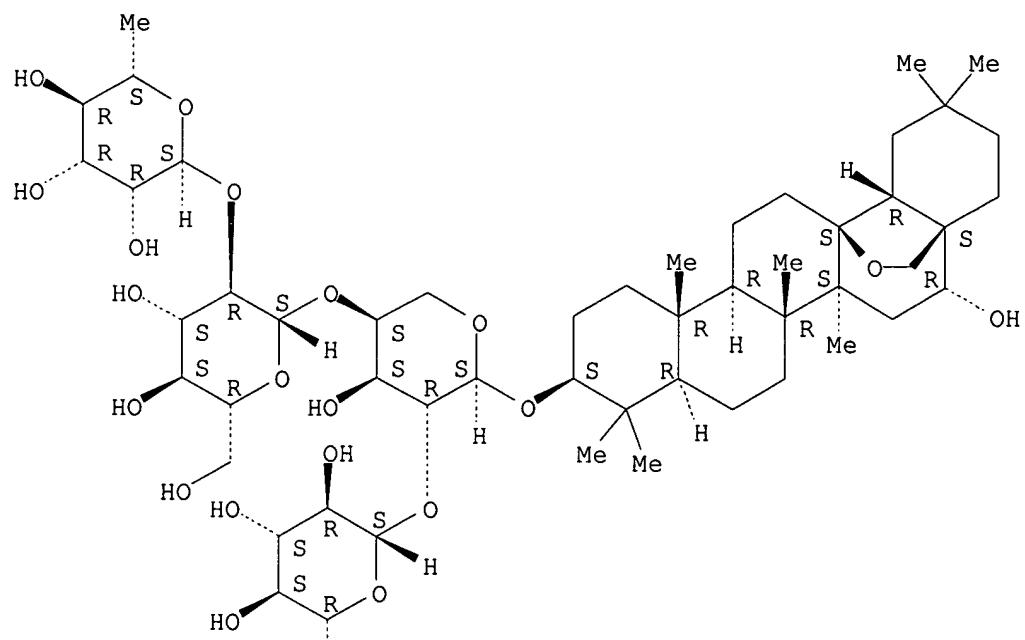


RN 160517-91-9 HCAPLUS

CN α -L-Arabinopyranoside, (3 β ,16 α)-13,28-epoxy-16-hydroxyoleanan-3-yl O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O- β -D-glucopyranosyl-(1 \rightarrow 4)-O-[β -D-glucopyranosyl-(1 \rightarrow 2)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



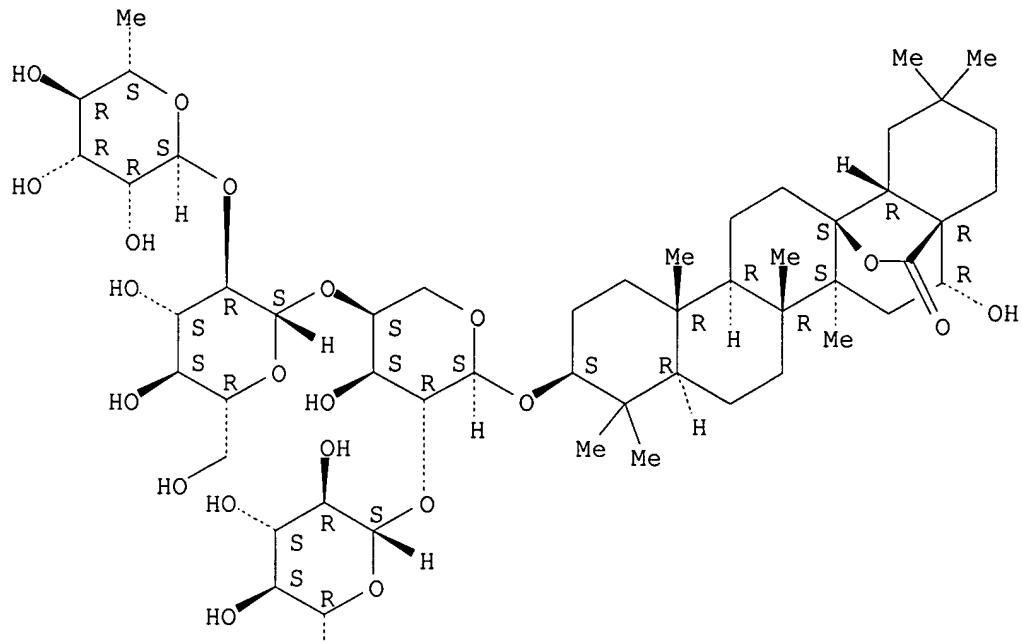
PAGE 2-A



RN 160517-93-1 HCAPLUS
 CN Oleanan-28-oic acid, 3-[(O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O- β -D-glucopyranosyl-(1 \rightarrow 4)-O- β -D-glucopyranosyl-(1 \rightarrow 2)]- α -L-arabinopyranosyl oxy]-13,16-dihydroxy-,
 γ -lactone, (3 β ,16 α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

PAGE 1-A



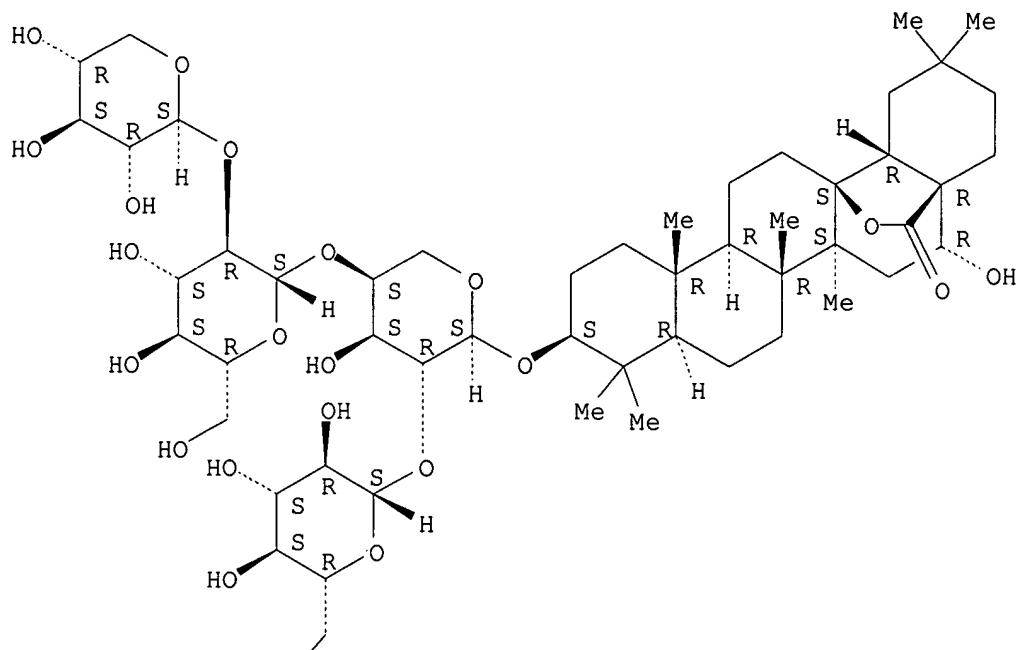
PAGE 2-A



RN 160517-94-2 HCPLUS
 CN Oleanan-28-oic acid, 3-[(O- β -D-glucopyranosyl-(1 \rightarrow 2)-O- [O- β -D-xylopyranosyl-(1 \rightarrow 2)- β -D-glucopyranosyl-(1 \rightarrow 4)]- α -L-arabinopyranosyl)oxy]-13,16-dihydroxy-, γ -lactone,
 (3 β ,16 α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

PAGE 1-A



PAGE 2-A

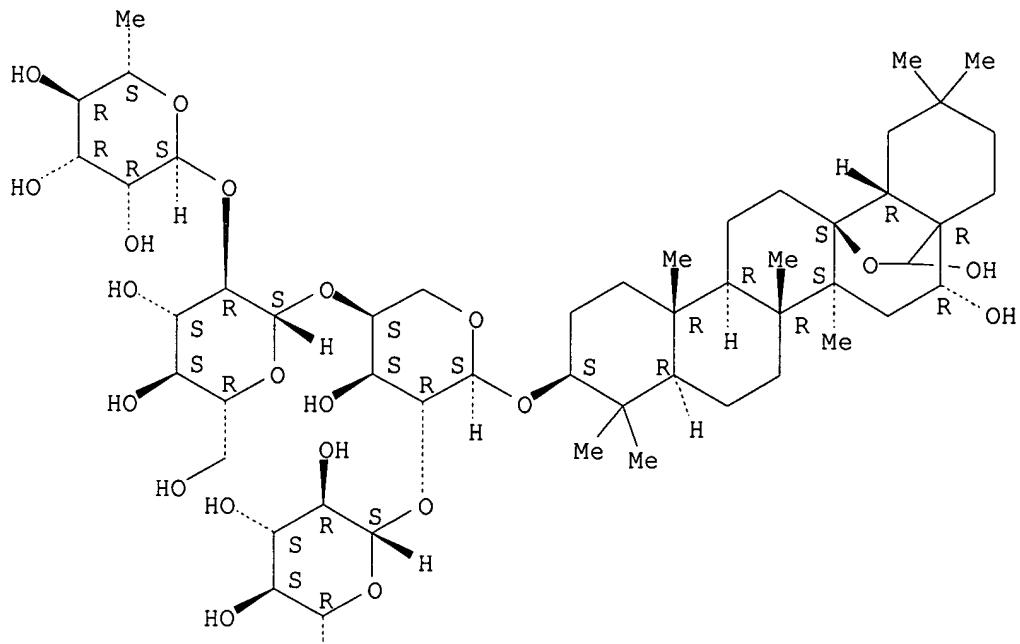


RN 160517-95-3 HCPLUS

CN α -L-Arabinopyranoside, (3 β ,16 α)-13,28-epoxy-16,28-dihydroxyoleanan-3-yl O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O- β -D-glucopyranosyl-(1 \rightarrow 4)-O-[β -D-glucopyranosyl-(1 \rightarrow 2)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A

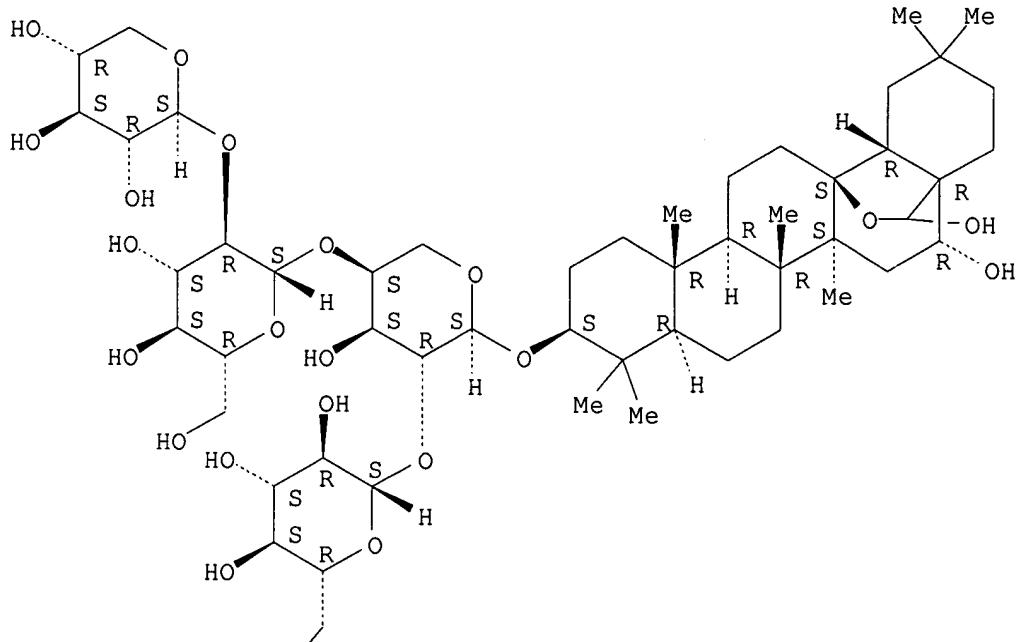


RN 160517-96-4 HCPLUS

CN α -L-Arabinopyranoside, (3 β ,16 α)-13,28-epoxy-16,28-dihydroxyoleanan-3-yl O- β -D-glucopyranosyl-(1 \rightarrow 2)-O-[O- β -D-xylopyranosyl-(1 \rightarrow 2)- β -D-glucopyranosyl-(1 \rightarrow 4)]- (9CI)
(CA INDEX NAME)

Absolute stereochemistry.

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PAGE 2-A

HO

IT 23643-61-0, Ardisiacrispin A 112766-96-8, Ardisiacrispin
B

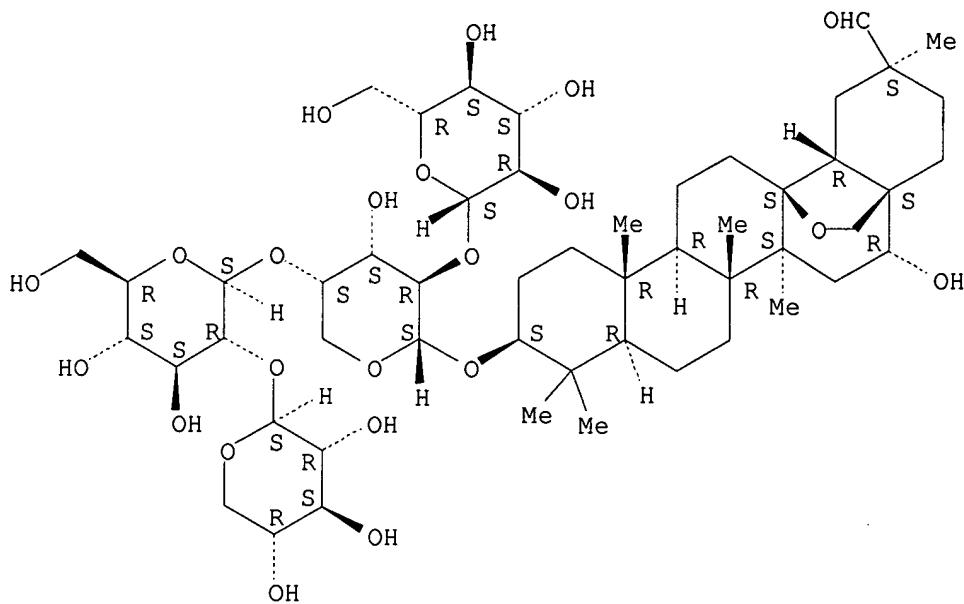
RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)

(cytotoxic saponins from New Zealand *Myrsine* species)

RN 23643-61-0 HCPLUS

CN Oleanan-29-ol, 13,28-epoxy-3-[(O- β -D-glucopyranosyl-(1 \rightarrow 2)-O-[O- β -D-xylopyranosyl-(1 \rightarrow 2)- β -D-glucopyranosyl-(1 \rightarrow 4)]- α -L-arabinopyranosyl)oxy]-16-hydroxy-, (3 β ,16 α ,20 β)-
(9CI) (CA INDEX NAME)

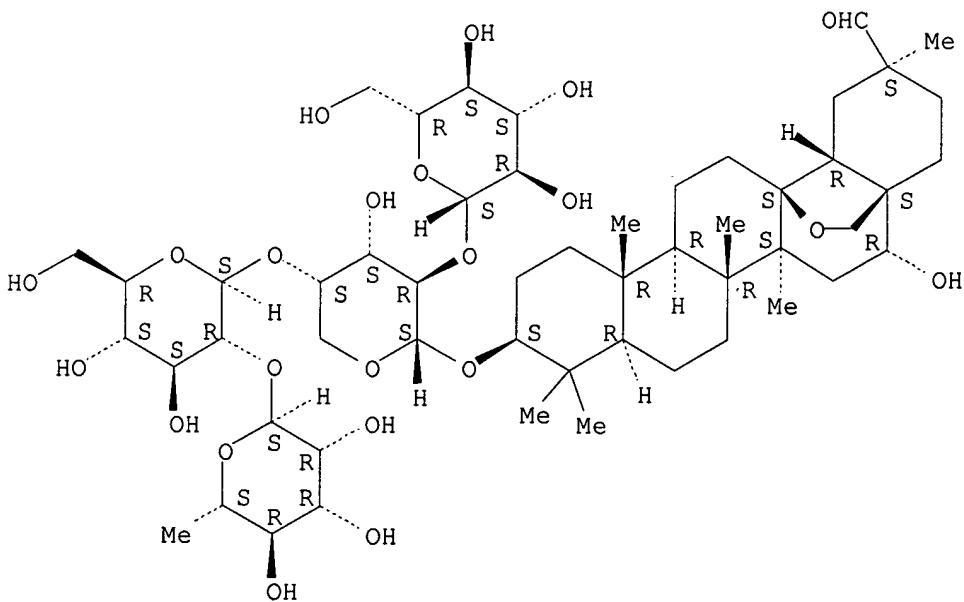
Absolute stereochemistry.



RN 112766-96-8 HCAPLUS

CN Oleanan-29-ol, 3-[(O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O- β -D-glucopyranosyl-(1 \rightarrow 4)-O- β -D-glucopyranosyl-(1 \rightarrow 2)]- α -L-arabinopyranosyl)oxy]-13,28-epoxy-16-hydroxy-, (3 β ,16 α ,20 β)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L63 ANSWER 7 OF 17 HCAPLUS COPYRIGHT 2006 ACS on STN

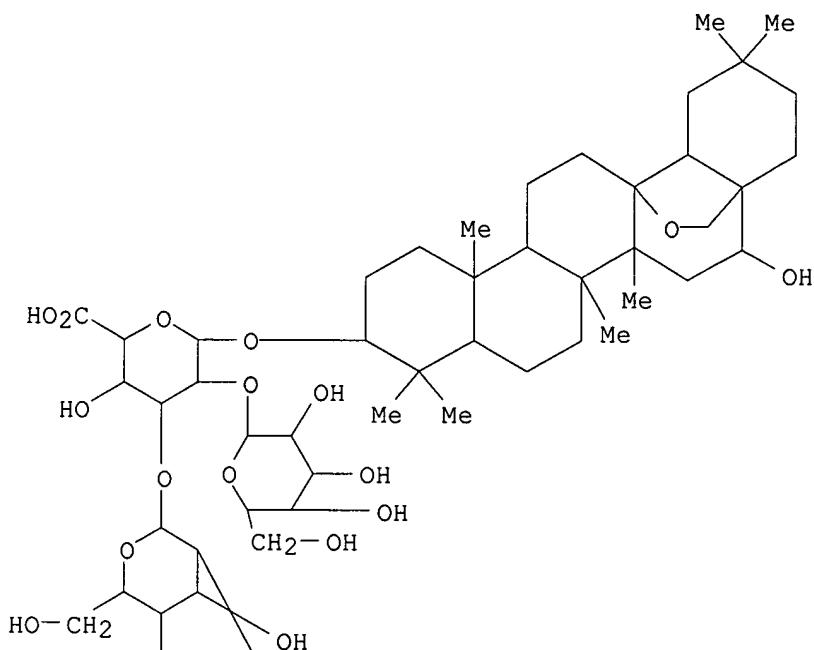
AN 1993:465641 HCAPLUS

DN 119:65641

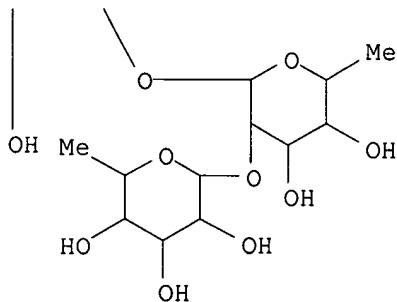
TI Molluscicidal and antifungal triterpenoid saponins from Rapanea

AU melanophloeos leaves
 AU Ohtani, Kazuhiro; Mavi, Steven; Hostettmann, Kurt
 CS Inst. Pharmacogn. Phytochim., Univ. Lausanne, Lausanne, CH-1015, Switz.
 SO Phytochemistry (1993), 33(1), 83-6
 CODEN: PYTCAS; ISSN: 0031-9422
 DT Journal
 LA English
 AB From the methanolic extract of leaves of *Rapanea melanophloeos*, a molluscidial and antifungal triterpenoid saponin has been isolated and identified as sakurasosaponin by spectral and chemical methods. Three other saponins, one of which showed weak molluscicidal activity, have also been isolated and identified as derivs. of sakurasosaponin.
 CC 5-6 (Agrochemical Bioregulators)
 Section cross-reference(s): 11, 30
 IT **Myrsine melanphloes**
 (sakurasosaponin derivs. from, antifungal and molluscicidal)
 IT **59527-84-3**, Sakurasosaponin 148843-58-7 148843-59-8
 148843-60-1
 RL: BIOL (Biological study)
 (from *Rapanea melanophloeos*, structure and antifungal and molluscicidal activity of)
 IT **2611-08-7P 148843-61-2P**
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)
 IT **465-95-2**, Primulagenin A
 RL: BIOL (Biological study)
 (sakurasosaponin hydrolysis product)
 IT **59527-84-3**, Sakurasosaponin
 RL: BIOL (Biological study)
 (from *Rapanea melanophloeos*, structure and antifungal and molluscicidal activity of)
 RN 59527-84-3 HCPLUS
 CN β -D-Glucopyranosiduronic acid, (3 β ,16 α)-13,28-epoxy-16-hydroxyoleanan-3-yl 0-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-0-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-0- β -D-galactopyranosyl-(1 \rightarrow 3)-0-[β -D-glucopyranosyl-(1 \rightarrow 2)]- (9CI) (CA INDEX
 NAME)

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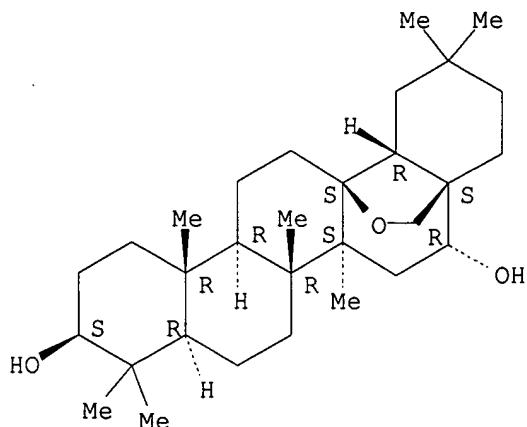
IT 2611-08-7P 148843-61-2P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 2611-08-7 HCAPLUS

CN Oleanane-3,16-diol, 13,28-epoxy-, (3β,16α)- (9CI) (CA INDEX
NAME)

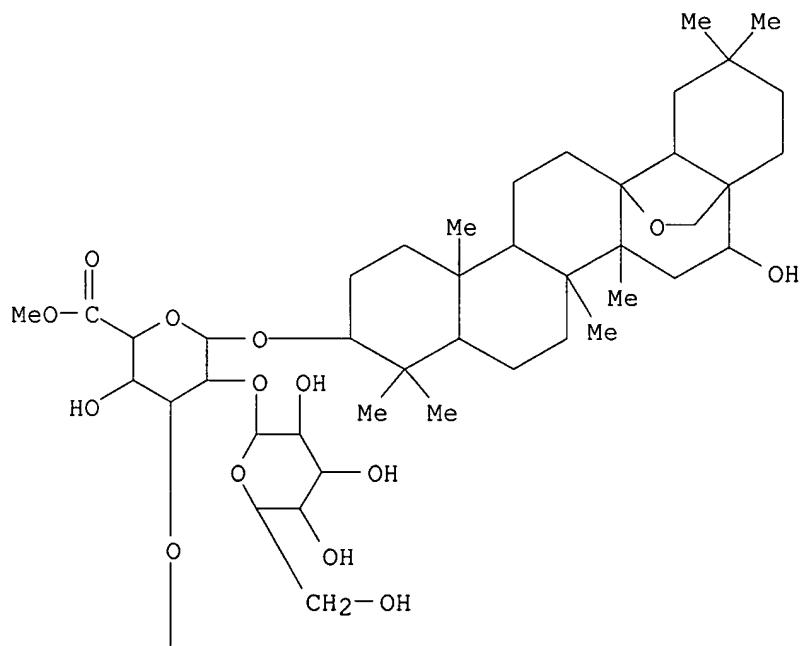
Absolute stereochemistry.



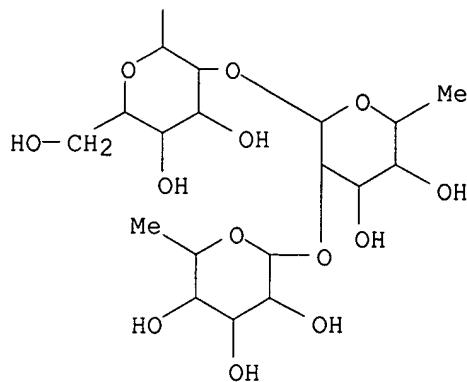
RN 148843-61-2 HCPLUS

CN β -D-Glucopyranosiduronic acid, (3 β ,16 α)-13,28-epoxy-16-hydroxyoleanan-3-yl 0-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-0-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-0- β -D-galactopyranosyl-(1 \rightarrow 3)-0- $[\beta$ -D-glucopyranosyl-(1 \rightarrow 2)]-, methyl ester (9CI)
(CA INDEX NAME)

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IT 465-95-2, Primulagenin A

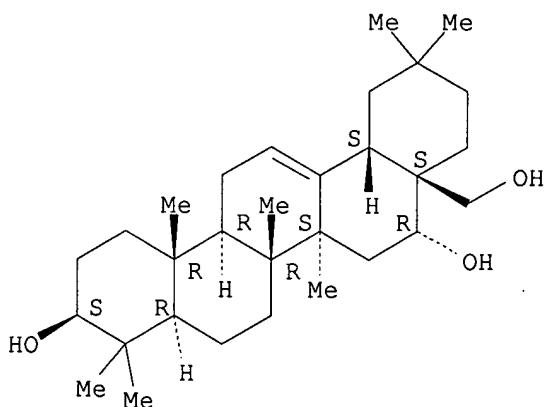
RL: BIOL (Biological study)

(sakurasosaponin hydrolysis product)

RN 465-95-2 HCPLUS

CN Olean-12-ene-3,16,28-triol, (3 β ,16 α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L63 ANSWER 8 OF 17 HCPLUS COPYRIGHT 2006 ACS on STN

AN 1992:158896 HCPLUS

DN 116:158896

TI Isolation of a nonsteroidal antiinflammatory, analgesic, antipyretic and tranquilosedative triterpene glycoside drug from *Maesa chisia*, and biological activity and pharmaceutical composition containing the drug

IN Chakravarty, Ajit Kumar; Ghatak, Bimal Jyoti Ray; Das, Binayak; Gomes, Aparna; Sharma, Radha Mohan; Pakrashi, Satyesh Chandra

PA Council of Scientific and Industrial Research, India

SO Indian, 9 pp.

CODEN: INXXAP

DT Patent

LA English

FAN.CNT 1

PATENT NO.

KIND

DATE

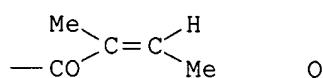
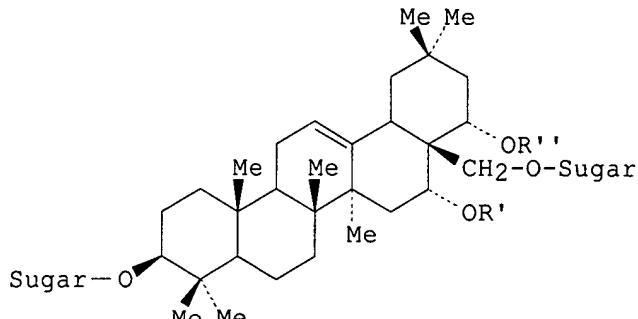
APPLICATION NO.

DATE

PI IN 165214
 PRAI IN 1985-DE1052
 OS MARPAT 116:158896
 GI

A 19890826 IN 1985-DE1052
 19851212 <--

19851212 <--



AB The title drug I (R', R'' = COMe, Q) is isolated from *M. chisia* D. Don var *angustifolia* Hook plant leaves, using extraction with MeOH. Antiinflammatory, etc. activities of the drug were determined in animal model studies. A tablet formulation is presented.

IC ICM C07C0175-00

CC 63-4 (Pharmaceuticals)
 Section cross-reference(s): 1, 11

IT **Maesa chisia angustifolia**
 (triterpene glycoside from, for antiinflammatory and analgesic and antipyretic and tranquilosedative)

IT **111508-73-7D, sugar conjugates**
 RL: PROC (Process)
 (isolation of, from *Maesa chisia*, for antiinflammatory and analgesic and antipyretic and tranquilosedative)

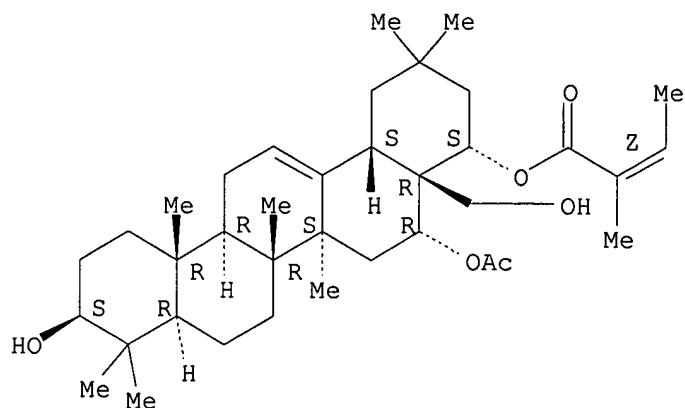
IT **111508-73-7D, sugar conjugates**
 RL: PROC (Process)
 (isolation of, from *Maesa chisia*, for antiinflammatory and analgesic and antipyretic and tranquilosedative)

RN 111508-73-7 HCPLUS

CN Olean-12-ene-3,16,22,28-tetrol, 16-acetate 22-(2-methyl-2-butenoate), [3 β ,16 α ,22 α (Z)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

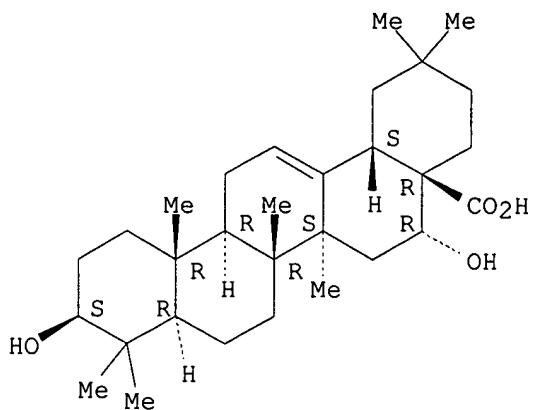


L63 ANSWER 9 OF 17 HCAPLUS COPYRIGHT 2006 ACS on STN
 AN 1991:30111 HCAPLUS
 DN 114:30111
 TI Purification of pharmaceutical triterpene glycosides
 IN Bader, Gerd; Hiller, Karl; Ehwald, Rudolf; Guempel, Christoph; Rathgen, Kerstin
 PA Humboldt-Universitaet zu Berlin, Ger. Dem. Rep.
 SO Ger. (East), 5 pp.
 CODEN: GEXXA8
 DT Patent
 LA German
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI DD 276287	A1	19900221	DD 1988-320864	19881018 <--
PRAI DD 1988-320864		19881018 <--		

AB Pharmaceutical triterpene glycosides, originating from Asteraceae, are purified, individually or in mixture, by column chromatog. on protein-rich vesicular materials, originating from yeast. A crude glycoside extract from Solidago canadensis was passed through a column filled with Fenmosin (spray-dried Candida). Elution with water yielded bayogenin glycosides, whereas the phenolic glycosides were eluted later with MeOH. A 2nd purification was carried out on Sephadex LH20.
 IC ICM C07H0015-24
 CC 63-4 (Pharmaceuticals)
 Section cross-reference(s): 11, 33
 IT 117-39-5DP, glycosides 508-02-1DP, Oleanolic acid, glycosides 510-30-5DP, Echinocystic acid, glycosides 3570-04-5DP, glycosides 6989-24-8DP, Bayogenin, glycosides
 RL: PUR (Purification or recovery); PREP (Preparation)
 (purification of, by column chromatog. on spray-dried yeast)
 IT 510-30-5DP, Echinocystic acid, glycosides
 RL: PUR (Purification or recovery); PREP (Preparation)
 (purification of, by column chromatog. on spray-dried yeast)
 RN 510-30-5 HCAPLUS
 CN Olean-12-en-28-oic acid, 3,16-dihydroxy-, (3 β ,16 α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



L63 ANSWER 10 OF 17 HCAPLUS COPYRIGHT 2006 ACS on STN
 AN 1990:84152 HCAPLUS

DN 112:84152

TI Medicinal compositions based on flavonoids and saponins extracted from Chrysanthellum, process for their manufacture and therapeutical uses

IN Guillot, Bernard

PA IPHYM S. A., Fr.

SO Eur. Pat. Appl., 5 pp.

CODEN: EPXXDW

DT Patent

LA French

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 317453	A1	19890524	EP 1988-420384	19881116 <--
	EP 317453	B1	19930203		
	R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE FR 2623398	A1	19890526	FR 1987-16668	19871119 <--
	FR 2623398	B1	19900406		
	AT 85222	E	19930215	AT 1988-420384	19881116 <--
	ES 2053793	T3	19940801	ES 1988-420384	19881116 <--
PRAI	FR 1987-16668	A	19871119	<--	
	EP 1988-420384	A	19881116	<--	

AB Flavonoids and saponins (at a 2:1 ratio) are extracted from Chrysanthellum, which are useful for the treatment of cystic lithiasis, venous insufficiency, and arteritis. Powdered *C. americanum*, *C. procumbens*, or *C. indicum afroamericanum* (200 kg) was extracted with EtOH at 60° and the extract was washed with CH₂Cl₂. The product contained chrysanthellin A and B derivs. of echinocystic acid and caulophyllogenin, glucosyl 7 isookanin, glucosyl 7 eriodictyol, glucosyl 7 luteolin, marein, maritimein, apigenin, caffeic acid, chlorogenic acid, and isochlorogenic acid. In patients treated with 300 mg of the extract/day for 2 mo cholesterol levels decreased 17% and triglycerides dropped 56%.

IC ICM A61K0035-78

CC 63-4 (Pharmaceuticals)

Section cross-reference(s): 1, 11

IT 327-97-9, Chlorogenic acid 327-97-9D, Chlorogenic acid, derivs.

331-39-5 331-39-5D, Caffeic acid, derivs. 490-54-0, Maritimein

510-30-5D, Echinocystic acid, chrysantellin A and B derivs.

520-36-5, Apigenin 534-61-2, Isochlorogenic acid 535-96-6, Marein

577-38-8 5373-11-5 38965-51-4 52936-64-8D, Caulophyllogenin,

chrysantellin A and B derivs. 73039-13-1D, Chrysantellin A, derivs.
74411-65-7D, Chrysantellin B, derivs.

RL: BIOL (Biological study)

(medical composition containing, from Chrysanthellum)

IT 510-30-5D, Echinocystic acid, chrysantellin A and B derivs.

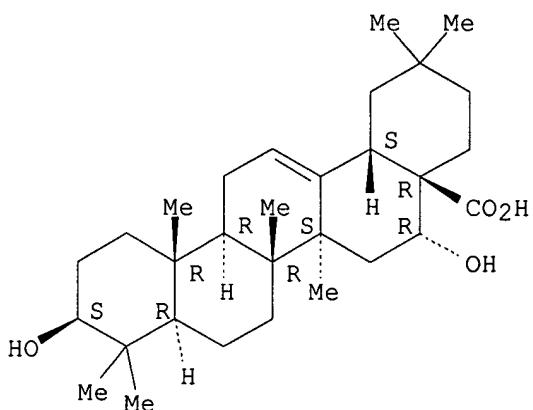
RL: BIOL (Biological study)

(medical composition containing, from Chrysanthellum)

RN 510-30-5 HCPLUS

CN Olean-12-en-28-oic acid, 3,16-dihydroxy-, (3 β ,16 α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



L63 ANSWER 11 OF 17 HCPLUS COPYRIGHT 2006 ACS on STN

AN 1987:633091 HCPLUS

DN 107:233091

TI Triterpenoid prosaponins from leaves of *Maesa chisia* var. *angustifolia*

AU Chakravarty, Ajit K.; Das, Binayak; Pakrashi, Satyesh C.

CS Indian Inst. Chem. Biol., Calcutta, 700032, India

SO Phytochemistry (1987), 26(8), 2345-9

CODEN: PYTCAS; ISSN: 0031-9422

DT Journal

LA English

AB Acid hydrolysis of the saponin fraction of the leaves of *M. chisia* var. *angustifolia* yielded a monoglucoside fraction, along with camelliagenin A as a minor constituent. The glucose moiety of the former could be removed by hydrolysis by Smith degradation to yield 2 new acylated triterpenoids characterized as 16 α -O-acetyl-22 α -O-angeloyl-camelliagenin A and 16 α -O-acetyl-22 α -O-(2'-methylbutyroyl)-camelliagenin A, as well as camelliagenin A and its 22 α ,28-glycoaldehyde acetal. The possibility of the latter acetal derivative being an artifact could not, however, be ruled out.

CC 11-1 (Plant Biochemistry)

Section cross-reference(s): 30

IT **Maesa chisia angustifolia**

(triterpenoid prosaponins of)

IT 53227-91-1, Camelliagenin A 111508-73-7

111508-74-8

RL: BIOL (Biological study)

(from *Maesa chisia angustifolia*)

IT 19885-04-2P 111508-70-4P 111508-71-5P 111508-72-6P
111508-75-9P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

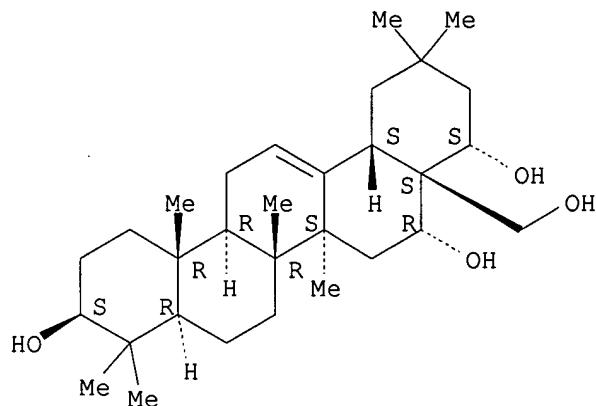
IT 53227-91-1, Camelliagenin A 111508-73-7
111508-74-8

RL: BIOL (Biological study)
(from *Maesa chisia angustifolia*)

RN 53227-91-1 HCAPLUS

CN Olean-12-ene-3,16,22,28-tetrol, (3 β ,16 α ,22 α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

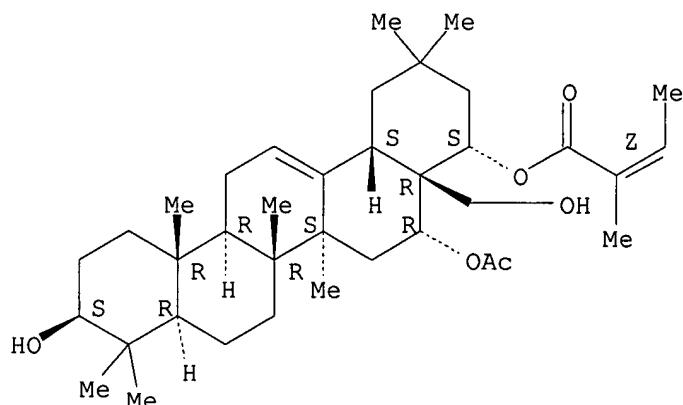


RN 111508-73-7 HCAPLUS

CN Olean-12-ene-3,16,22,28-tetrol, 16-acetate 22-(2-methyl-2-butenoate), [3 β ,16 α ,22 α (Z)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

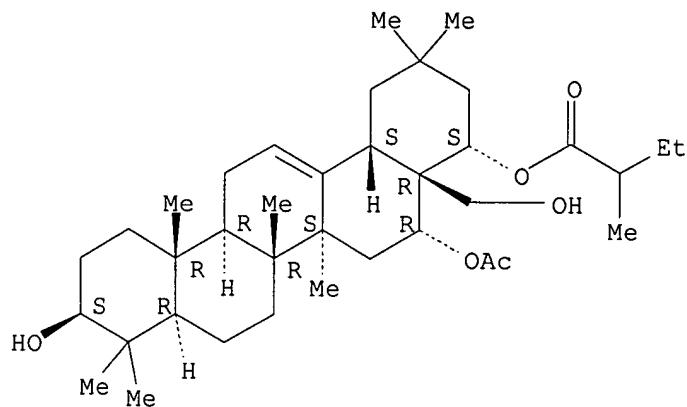
Double bond geometry as shown.



RN 111508-74-8 HCAPLUS

CN Olean-12-ene-3,16,22,28-tetrol, 16-acetate 22-(2-methylbutanoate), (3 β ,16 α ,22 α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



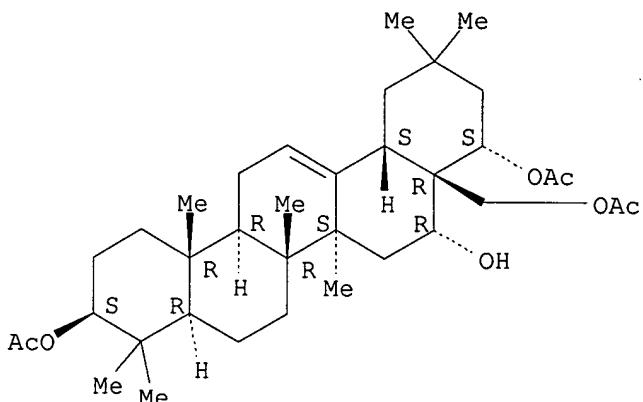
IT 19885-04-2P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 19885-04-2 HCPLUS

CN Olean-12-ene-3,16,22,28-tetrol, 3,22,28-triacetate,
(3β,16α,22α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L63 ANSWER 12 OF 17 HCPLUS COPYRIGHT 2006 ACS on STN

AN 1986:165407 HCPLUS

DN 104:165407

TI A contribution to the phytochemical survey of Peninsular Malaysia

AU Bin Rahmani, Mawardi; Kiew, Ruth; Lajis, Nordin H.; Othman, Rahim; Toia, Robert F.

CS Dep. Org. Chem., Univ. New South Wales, Kensington, 2033, Australia

SO Pertanika (1985), 8(3), 347-57

CODEN: PERTDY; ISSN: 0126-6128

DT Journal

LA English

AB Specimens of 216 plants representing 150 genera and 50 families were collected from 4 areas in the western and central parts of Peninsular Malaysia. The leaves of each species were screened for alkaloids, steroids and triterpenes, and saponins. Twenty-eight species

(13%) gave a pos. test for alkaloids, 86 (40%) for saponins, and 55 (25%) for **triterpenes/steroids**.

CC 11-1 (Plant Biochemistry)

IT Acanthaceae

Allophylus cobbe

Apocynaceae

Canarium

Compositae

Costus speciosus

Euphorbiaceae

Eurycoma longifolia

Gynotroches axillaris

Isotoma longiflora

Leea indica

Legume

Melastomataceae

Myrsinaceae

Myrtaceae

Physalis minima

Rosaceae

Rubiaceae

Sauraia nudiflora

Schima wallichii

Ulmaceae

Verbenaceae

(constituents of, of Peninsular Malaysia)

IT Alkaloids, biological studies

Natural products

Saponins

Steroids, biological studies

Triterpenes and Triterpenoids

RL: BIOL (Biological study)

(of plants, of Peninsular Malaysia)

L63 ANSWER 13 OF 17 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1978:552709 HCAPLUS

DN 89:152709

TI Extract of Chrysantellum type plants

IN Combier, Henri; Fauran, Francois; Andre-Mouries, Claude; Prat, Gisele; Thibault, Annie

PA Laboratoires Sarget, Fr.

SO Ger. Offen., 17 pp.

CODEN: GWXXBX

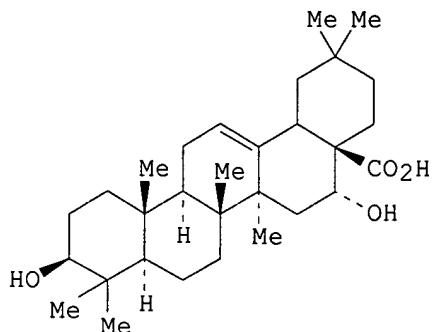
DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2801186	A1	19780727	DE 1978-2801186	19780112 <--
	DE 2801186	C2	19890413		
	FR 2378044	A1	19780818	FR 1977-1488	19770120 <--
	FR 2378044	B1	19790511		
	NL 7800030	A	19780724	NL 1978-30	19780102 <--
	CA 1090781	A1	19801202	CA 1978-294559	19780109 <--
	BE 862852	A1	19780502	BE 1978-184267	19780112 <--
	CH 630528	A	19820630	CH 1978-330	19780112 <--
	ZA 7800300	A	19790228	ZA 1978-300	19780117 <--
	US 4146615	A	19790327	US 1978-870649	19780119 <--
	ES 466222	A1	19781016	ES 1978-466222	19780120 <--
PRAI	FR 1977-1488	A	19770120 <--		

GI



AB Chrysanthellum plant triterpene-rich exts. having as main component a new saponin derivative of echinocystic acid (I) which contains rhamnose, glucose and xylose in the sugar fraction are obtained by extraction with an organic solvent or aqueous organic solvent mixture, defatting and concentration of the organic phase, and redissoln. of the precipitate in an organic solvent such as CHCl₃. The exts.

show oral and i.p. LD₅₀s of 3200 and 15-30 mg/kg in mice. They are useful in human and veterinary medicine and they show analgesic, antiinflammatory, and capillary-protective activity, and suitability for treatment of leg ulcers. A salve was prepared by combining 3 g of an extract with enough polyethylene glycol and H₂O to give 100 g. Low mol. weight alcs. and dialkylketones and esters of low mol. weight aliphatic alcs. are useful as the extraction solvents.

IC A61K0035-78

CC 63-4 (Pharmaceuticals)

Section cross-reference(s): 11

IT 510-30-5D, saponin derivs.

RL: BIOL (Biological study)

(Chrysanthellum exts. containing, isolation and pharmacol. of)

IT 510-30-5D, saponin derivs.

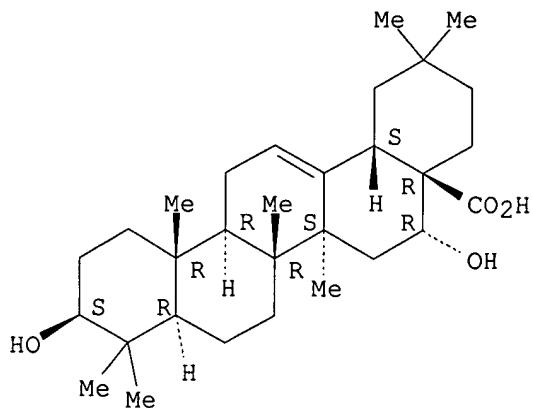
RL: BIOL (Biological study)

(Chrysanthellum exts. containing, isolation and pharmacol. of)

RN 510-30-5 HCAPLUS

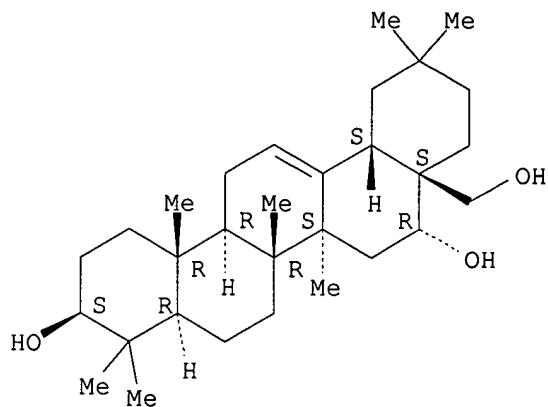
CN Olean-12-en-28-oic acid, 3,16-dihydroxy-, (3 β ,16 α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



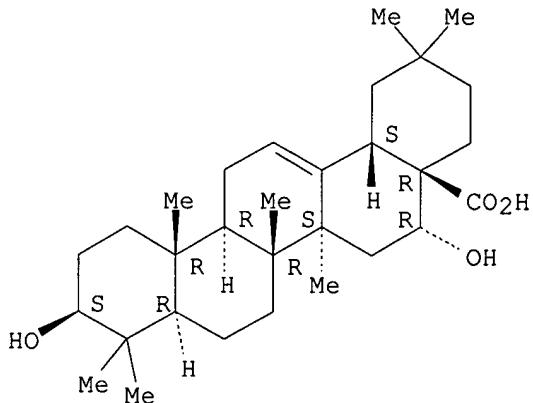
L63 ANSWER 14 OF 17 HCAPLUS COPYRIGHT 2006 ACS on STN
 AN 1978:456465 HCAPLUS
 DN 89:56465
 TI Chemical constituents of *Tapeinosperma pseudojambosa*
 AU Baigent, D. Robin; Lewis, Keith G.
 CS Org. Chem. Dep., Univ. New England, Armidale, Australia
 SO Australian Journal of Chemistry (1978), 31(6), 1375-81
 CODEN: AJCHAS; ISSN: 0004-9425
 DT Journal
 LA English
 AB The leaves and bark of *T. pseudojambosa* contained, as in other **Myrsinaceae**, a "quinone" fraction in quantity. From the various exts. of the leaves and bark the known α - and β -amyrin, bauerenol, quercetin, primulagenin A, and echinocystic acid were obtained.
 CC 11-1 (Plant Biochemistry)
 IT **Triterpenes and Triterpenoids**
 RL: BIOL (Biological study)
 (in bark and leaves of *Tapeinosperma pseudojambosa*)
 IT *Tapeinosperma pseudojambosa*
 (triterpenes in bark and leaves of)
 IT 465-95-2 510-30-5 522-12-3 559-70-6 638-95-9
 6466-94-0
 RL: BIOL (Biological study)
 (in bark and leaves of *Tapeinosperma pseudojambosa*)
 IT 465-95-2 510-30-5
 RL: BIOL (Biological study)
 (in bark and leaves of *Tapeinosperma pseudojambosa*)
 RN 465-95-2 HCAPLUS
 CN Olean-12-ene-3,16,28-triol, (3 β ,16 α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 510-30-5 HCPLUS
 CN Olean-12-en-28-oic acid, 3,16-dihydroxy-, (3 β ,16 α)- (9CI) (CA
 INDEX NAME)

Absolute stereochemistry. Rotation (+).



L63 ANSWER 15 OF 17 HCPLUS COPYRIGHT 2006 ACS on STN
 AN 1975:497648 HCPLUS

DN 83:97648

TI 13,28-Epoxyolcananes

IN Igarashi, Kikuo; Ishii, Hiroshi; Sakurai, Kensuke

PA Shionogi and Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 50064265	A2	19750531	JP 1973-116203	19731016 <--
	JP 58044662	B4	19831004		
PRAI	JP 1973-116203	A	19731016 <--		
GI	For diagram(s), see printed CA Issue.				
AB	Oleanones (I, R7-R8 = H, OH, R9,R10 = H, OH or R9R10 = epoxy) were				

acylated to give II (R = acyl, R7-R8 = H, acyloxy, R9,R10 = H, acyloxy, or R9R10 = epoxy), allylic oxidation of which gave III, which were reduced (metal hydride) to IV, and IV were treated with acid to give epoxyoleanene V. Thus, 257 mg II (R = Ac, R1 = R3-R8 = R10 = H, R2 = R9 = OAc), prepared by acetylation of I (R1 = R3-R8 = R10, R2 = R9 = OH), was oxidized with Na2Cr2O7-HOAc to give 252 mg III (R = Ac, R1 = R3-R8 = R10 = H, R2 = R9 = OAc), which (309 mg) was reduced with LiAlH4 to give 255 mg IV (R1 = R3-R10 = H, R2 = R9 = OH). The latter (255 mg) in dioxane was treated with 0.05% p-MeC6H4SO3H for 15 min at room temperature to give 210 mg saikogenin

G. About 13 addnl. I were prepared similarly. I were inflammation inhibitors.

IC C07D; A61K; B01J

CC 30-30 (Terpenoids)

Section cross-reference(s): 63

IT 13844-01-4

RL: PROC (Process)

(conversion of, to 21 β ,22 α -dihydroxy-16-episaikogenin E)

IT 53227-91-1

RL: PROC (Process)

(conversion of, to 22 α -hydroxy-16-episaikogenin E)

IT 14694-67-8

RL: PROC (Process)

(conversion of, to 3 β ,16 α ,21 β ,22 α ,28-pentaacetoxyolean-12-en-11-one)

IT 13844-01-4

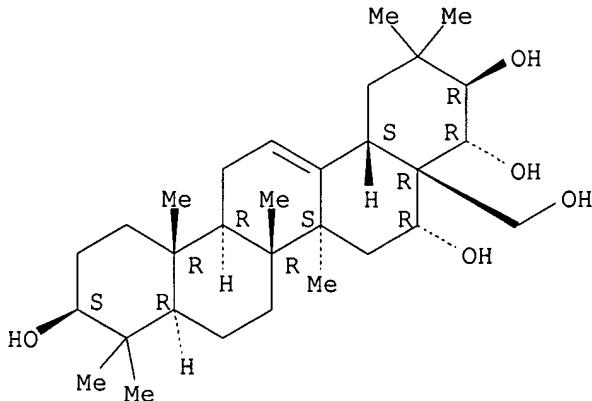
RL: PROC (Process)

(conversion of, to 21 β ,22 α -dihydroxy-16-episaikogenin E)

RN 13844-01-4 HCPLUS

CN Olean-12-ene-3,16,21,22,28-pentol, (3 β ,16 α ,21 β ,22 α)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 53227-91-1

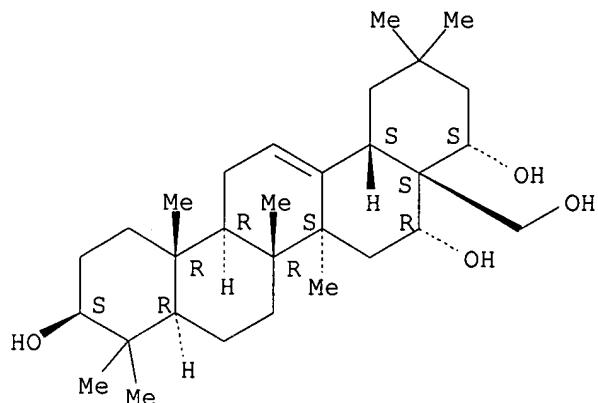
RL: PROC (Process)

(conversion of, to 22 α -hydroxy-16-episaikogenin E)

RN 53227-91-1 HCPLUS

CN Olean-12-ene-3,16,22,28-tetrol, (3 β ,16 α ,22 α)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 14694-67-8

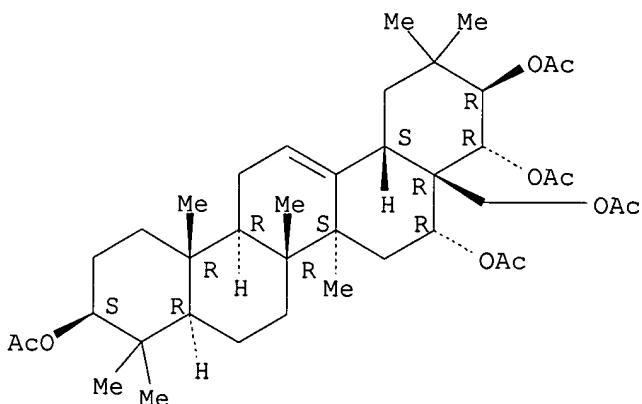
RL: PROC (Process)

(conversion of, to 3β,16α,21β,22α,28-pentaacetoxyolean-12-en-11-one)

RN 14694-67-8 HCPLUS

CN Olean-12-ene-3,16,21,22,28-pentol, pentaacetate,
(3β,16α,21β,22α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L63 ANSWER 16 OF 17 HCPLUS COPYRIGHT 2006 ACS on STN

AN 1968:47007 HCPLUS

DN 68:47007

TI Extractives of some **Myrsine** species

AU Cambie, Richard C.; Couch, R. A. F.

CS Univ. Auckland, Auckland, N. Z.

SO New Zealand Journal of Science (1967), 10(4), 1020-9

CODEN: NZJSAB; ISSN: 0028-8365

DT Journal

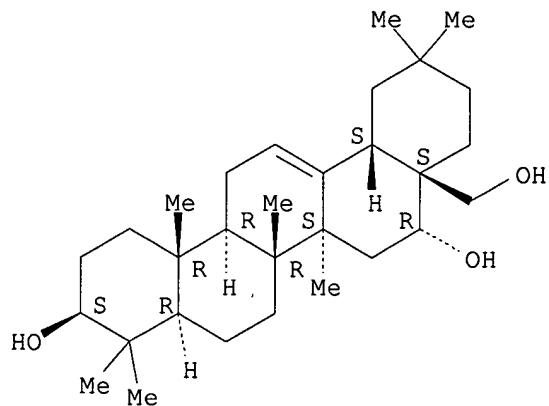
LA English

AB To reduce the uncertainty concerning the occurrence in **Myrsinaceae** of certain compds., ir, uv, and N.M.R. spectral analyses were performed on chromatog. separated exts. of various plant parts. Vilangin and (+)-quercitol were isolated from the flowers of *M. australis*, while embelin, vilangin and 2 leucoanthocyanins were present in the fruit. From the leaves

pentatriacontane, quercitin, quercitrin, rutin, and a triterpenoid saponin fraction were obtained. On hydrolysis this fraction yielded a mixture of triterpenes, the principal one of which was genin A. Glucose, galactose, arabinose, xylose, glucuronic acid, glucuronic acid lactone, and an unidentified pentose were identified. Embelin is a constituent of the bark and heartwood of *M. australis* but neither embelin nor vilangin was isolated from the bark and wood of *M. kermadecensis* or *M. salicina*. Stigmasterol has been isolated from the wood of the former species and (+)quercitol from the wood of the latter.

CC 7 (Plant Biochemistry)
 ST TERPENOIDS PLANT; EXTRACTIVES **MYRSINE**; **MYRSINE** COMPN
 IT **Myrsine (genus)**
 (australis and kermadecensis and salicina, constituents of)
 IT 117-39-5 153-18-4 **465-95-2** 488-73-3 522-12-3 550-24-3
 630-07-9 4370-68-7
 RL: BIOL (Biological study)
 (in **Myrsine**)
 IT **465-95-2**
 RL: BIOL (Biological study)
 (in **Myrsine**)
 RN 465-95-2 HCPLUS
 CN Olean-12-ene-3,16,28-triol, (3 β ,16 α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L63 ANSWER 17 OF 17 HCPLUS COPYRIGHT 2006 ACS on STN
 AN 1950:10525 HCPLUS
 DN **44:10525**
 OREF 44:2086h-i,2087a
 TI **Triterpenoids. I. Distribution of triterpenoids as plant constituents**
 AU Kariyone, Tatsuo; Hashimoto, Yohei
 CS Univ. Kyoto, Japan
 SO *Yakugaku Zasshi* (1949), 69, 313-14
 CODEN: YKKZAJ; ISSN: 0031-6903
 DT Journal
 LA Unavailable
 AB As a result of the microchem. examinations of the distribution of **triterpenoid** in plants, 287 pos. cases were obtained from 617 samples tested. There were 22 in Compositae, 5 in Campanulaceae, 12 in Caprifoliaceae, 13 in Oleaceae, 6 in **Myrsinaceae**, 26 in Ericaceae, 6 in Cornaceae, 7 in Araliaceae, 6 in Elaeagnaceae, 9 in

Theaceae, 14 in Aquifoliaceae, 7 in Leguminosae, 30 in Rosaceae, 5 in Ranunculaceae, 12 in Fagaceae, 6 in Liliaceae and 101 in others. It follows, therefore, that the distribution of **triterpenoid** in plant is unexpectedly wide-spread and could be classed as a normal component; the content is generally greater in evergreen plants having thick leaves with well-developed cuticula.

CC 11D (Biological Chemistry: Botany)

IT **Triterpenes**

(in plants)

IT Plants

(**triterpenoids** in)

=> d 164 bib abs hitstr retable tot

L64 ANSWER 1 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1998:664360 HCAPLUS

DN 130:75767

TI In vitro antifungal and cytotoxic activity of triterpene saponosides and quinoid pigments from *Lysimachia vulgaris* L.

AU Podolak, I.; Elas, M.; Cieszka, K.

CS Department of Pharmacognosy, Collegium Medicum, Jagiellonian University, Krakow, 30-688, Pol.

SO Phytotherapy Research (1998), 12(Suppl. 1, Second International Symposium on Natural Drugs, 1997), S70-S73
CODEN: PHYREH; ISSN: 0951-418X

PB John Wiley & Sons Ltd.

DT Journal

LA English

AB *Lysimachia vulgaris* L. (Primulaceae) has been used in the folk medicine of Europe and Asia in the treatment of fever, ulcers, diarrhea and as an analgesic and antiinflammatory agent. From the underground parts of the plant a benzoquinone pigment and triterpene saponosides were isolated. Cytotoxic and antifungal activity of these compds. were tested in vitro against human and mouse melanoma cells and the yeast *Candida albicans* resp. The results showed that saponoside B exerted cytotoxicity especially towards human melanoma cells. The pigment was more active as an antifungal agent.

IT 126882-54-0

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

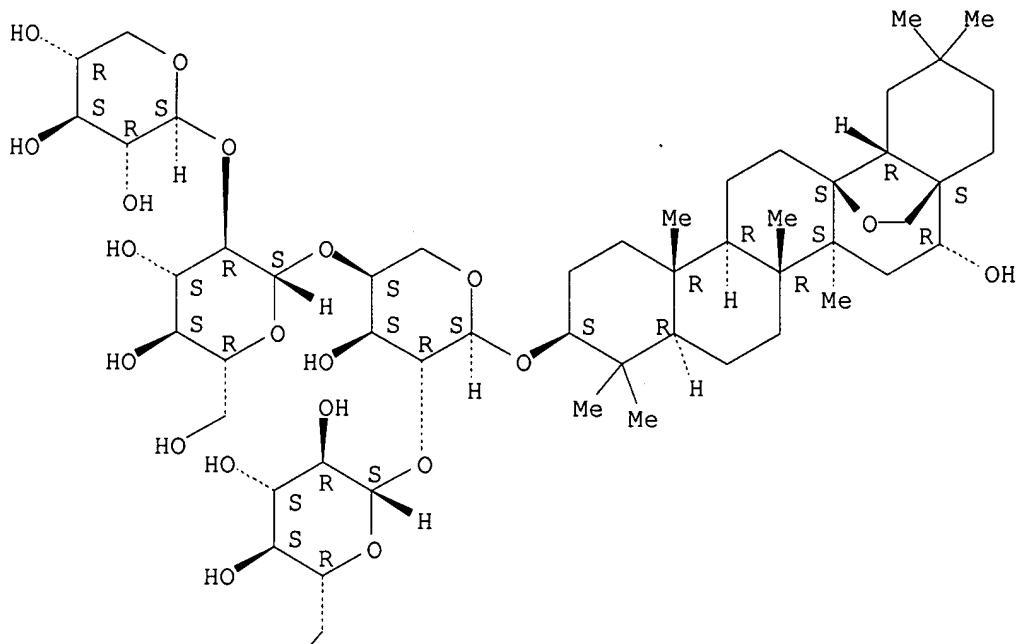
(antifungal and cytotoxic activity of triterpenoid saponosides and quinoid pigments from *Lysimachia vulgaris*)

RN 126882-54-0 HCAPLUS

CN α -L-Arabinopyranoside, (3 β ,16 α)-13,28-epoxy-16-hydroxyoleanan-3-yl O- β -D-glucopyranosyl-(1 \rightarrow 2)-O-[O- β -D-xylopyranosyl-(1 \rightarrow 2)- β -D-glucopyranosyl-(1 \rightarrow 4)]- (9CI)
(CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

PAGE 1-A



PAGE 2-A

HO

RETABLE

Referenced Author (RAU)	Year (R PY)	VOL (R VL)	PG (R PG)	Referenced Work (R WK)	Referenced File
Bloor, S	1994	57	1354	J Nat Prod	HCAPLUS
Janik, I	1994	65	476	Fitoterapia	HCAPLUS
Kinoshita, K	1992	58	137	Planta Med	HCAPLUS
Kubo, I	1994	4	11131	Bioorgan Med Chem Lett	HCAPLUS
Ohtani, K	1993	33	183	Phytochemistry	HCAPLUS
Quentin-Leclercq, J	1992	58	1279	Planta Med	HCAPLUS
Rahalison, L	1994	60	41	Planta Med	HCAPLUS
Tschesche, R	1963	19	1621	Tetrahedron	HCAPLUS

L64 ANSWER 2 OF 47 · HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1998:15420 HCAPLUS

DN 128:124596

TI Metallothionein-independent hepatoprotection by zinc and sakuraso-saponin

AU Itoh, Norio; Kimura, Tomoki; Nakanishi, Hirokuni; Muto, Norio; Kobayashi, Motomasa; Kitagawa, Isao; Tanaka, Keiichi

CS Suita, Yamada-oka, Pharmaceutical Sciences, Environmental Toxicology, Osaka University, Osaka 565, 1-6, Japan

SO Toxicology Letters (1997), 93(2,3), 135-140

CODEN: TOLED5; ISSN: 0378-4274

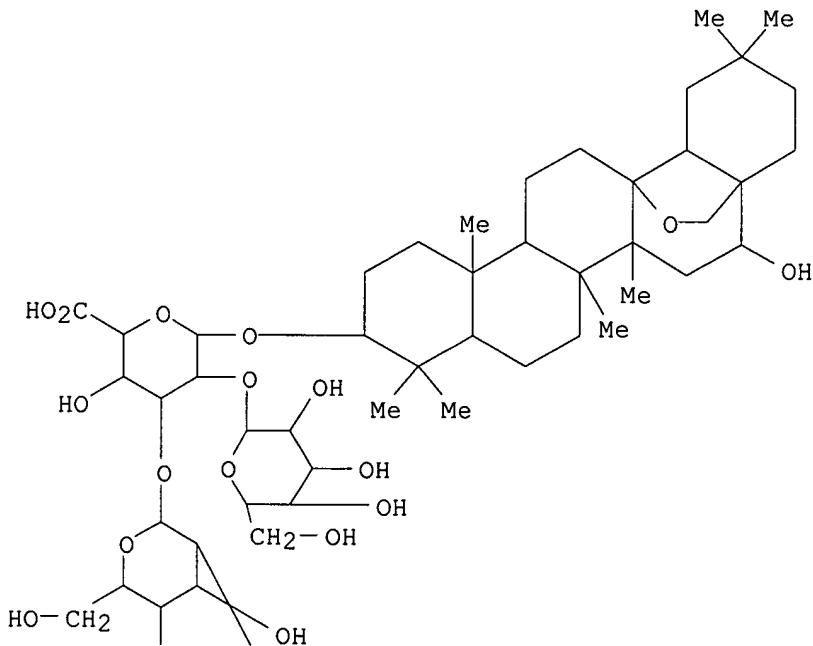
PB Elsevier Science Ireland Ltd.

DT Journal
 LA English
 AB Hepatoprotective activities of zinc and sakuraso-saponin against toxicity of carbon tetrachloride were investigated in metallothionein (MT)-deficient mice. Pretreatment of control 129/Sv mice with zinc or sakuraso-saponin blocked carbon tetrachloride-induced elevation of plasma transaminase activities. Quant. equivalent protection against carbon tetrachloride-induced hepatic damage was also observed in MT-deficient mice. Zinc and sakuraso-saponin caused elevation of hepatic MT levels in control 129/Sv mice, whereas hepatic MT was undetectable in MT-deficient mice. To examine the possibility that sakuraso-saponin-induced hepatoprotection is mediated by endogenous zinc, the hepatic concentration of zinc was analyzed. Hepatic zinc concentration in MT-deficient mice was not changed by the treatment of sakuraso-saponin. Injection of sakuraso-saponin caused a decrease of activity of aniline hydroxylation. The suppression of cytochrome P 450 appears to be a mechanism by which sakuraso-saponin protects mice from the hepatotoxic effects of carbon tetrachloride. These findings indicate that the hepatoprotective activity of zinc or sakuraso-saponin is not dependent on their MT-inducing activity.

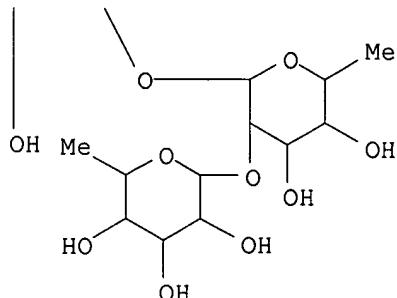
IT 59527-84-3, Sakuraso-saponin
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
 (metallothionein-independent hepatoprotection by zinc and sakuraso-saponin)

RN 59527-84-3 HCPLUS
 CN β -D-Glucopyranosiduronic acid, (3 β ,16 α)-13,28-epoxy-16-hydroxyoleanan-3-yl 0-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-0-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-0- β -D-galactopyranosyl-(1 \rightarrow 3)-0-[β -D-glucopyranosyl-(1 \rightarrow 2)]- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Bhathal, P	1983	64	524	Br J Exp Pathol	HCAPLUS
Biesel, K	1984	65	125	Br J Exp Pathol	HCAPLUS
Cagen, S	1979	51	107	Toxicol Appl Pharmac	HCAPLUS
Clarke, I	1986	64	1104	Can J Physiol Pharma	HCAPLUS
Diaz, G	1980	56	199	Toxicol Appl Pharmac	
Dunn, M	1987	185	107	Proc Soc Exp Biol Me	HCAPLUS
Hanna, P	1993	6	711	Chem Res Toxicol	HCAPLUS
Hu, Y	1994	269	1286	J Pharmacol Exp Ther	HCAPLUS
Imai, Y	1966	60	417	J Biochem	HCAPLUS
Itoh, N	1997	11	132	Phytother Res	HCAPLUS
Johansson, I	1985	183	265	FEBS Lett	HCAPLUS
Kitagawa, I	1980	28	296	Chem Pharm Bull	HCAPLUS
Liu, J	1993	121	144	Toxicol Appl Pharmac	HCAPLUS
Liu, J	1995	134	124	Toxicol Appl Pharmac	HCAPLUS
Masters, B	1994	91	584	Proc Natl Acad Sci U	HCAPLUS
Michalska, A	1993	90	8088	Proc Natl Acad Sci U	HCAPLUS
Omura, T	1964	239	2370	J Biol Chem	HCAPLUS
Onosaka, S	1978	24	128	Eiseikagaku	HCAPLUS
Robert, R	1983	III	416	Methods of enzymatic	
Suntres, E	1990	39	833	Biochem Pharmacol	
Wormser, U	1989	13	316	Arch Toxicol Suppl	HCAPLUS

L64 ANSWER 3 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1997:274962 HCAPLUS

DN 126:325444

TI Metallothionein induction and hepatoprotection by echinoside A and Sakuraso-saponin

AU Itoh, Norio; Morishita, Yasuhiro; Tanaka, Tetsuya; Muto, Norio; Kobayashi, Motomasa; Kitagawa, Isao; Tanaka, Keiichi

CS Faculty of Pharmaceutical Sciences, Osaka University, Suita, 565, Japan

SO Phytotherapy Research (1997), 11(2), 132-135

CODEN: PHYREH; ISSN: 0951-418X

PB Wiley

DT Journal

LA English

AB Metallothionein-inducing activities of 11 saponins were investigated in mice. Of the saponins investigated, echinoside A and sakuraso-saponin were highly effective. Sakuraso-saponin showed dose-dependent and time-dependent induction of hepatic metallothionein. The isoforms of the

induced metallothionein in the liver were determined to be metallothionein 1 and 2. Induction of metallothionein was observed specifically in the liver and heart. Echinoside A showed similar effects to sakuraso-saponin except that no induction was observed in the heart. Pretreatment of mice with these saponins blocked CCI4-induced hepatic injury, such as the elevation of plasma transaminase activity and centrilobular necrosis in the liver. CCI4-induced elevation of lipid peroxide level in the liver was also blocked by injection of sakuraso-saponin. The hepatoprotective activities of the saponins found in this study may have been due to their MT-inducing activity.

IT 59527-84-3, Sakuraso-saponin

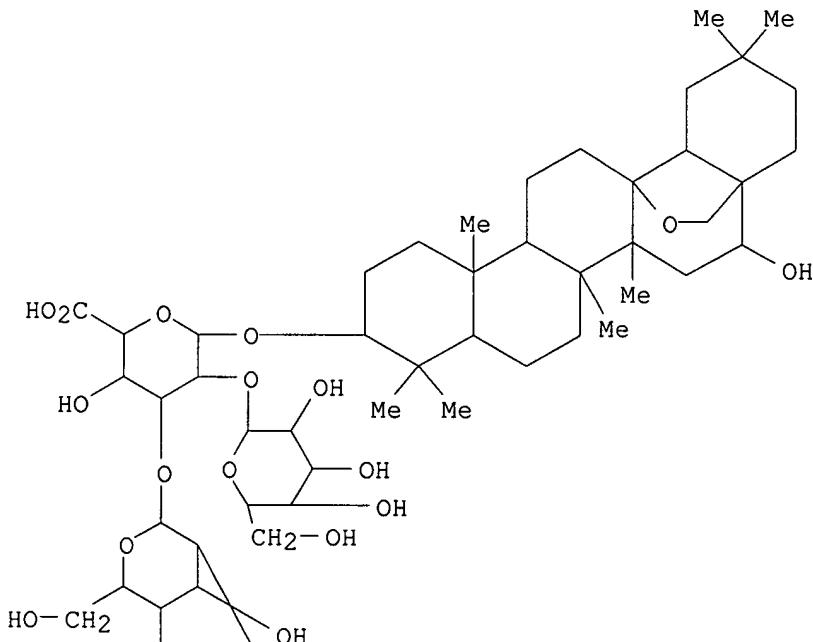
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(echinoside A, Sakuraso-saponin, and other saponins hepatoprotective activity and induction of metallothionein in liver and heart)

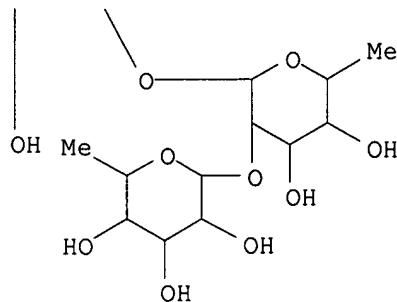
RN 59527-84-3 HCPLUS

CN β -D-Glucopyranosiduronic acid, (3 β ,16 α)-13,28-epoxy-16-hydroxyoleanan-3-yl 0-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-0-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-0- β -D-galactopyranosyl-(1 \rightarrow 3)-0- $[\beta$ -D-glucopyranosyl-(1 \rightarrow 2)]- (9CI) (CA INDEX NAME)

PAGE 1-A

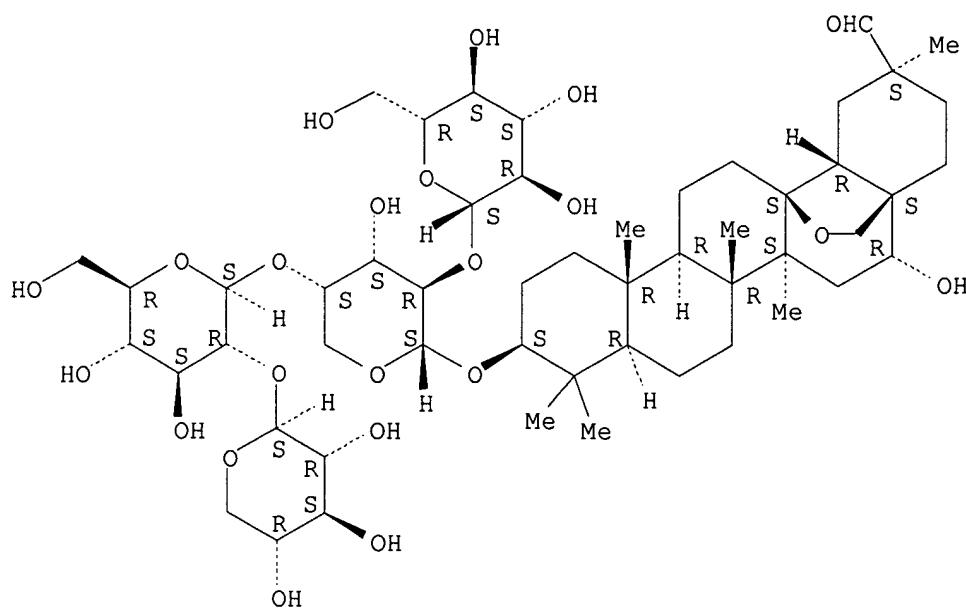


PAGE 2-A



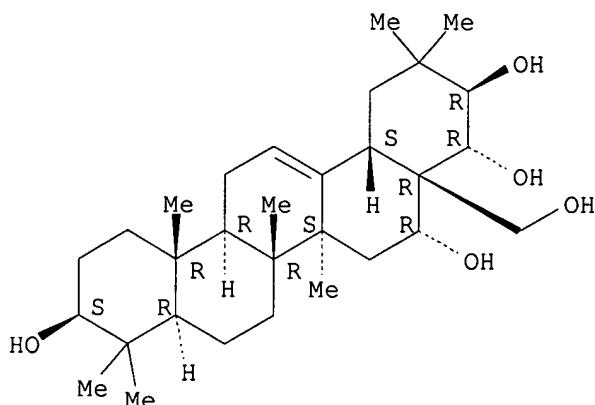
L64 ANSWER 4 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN
 AN 1997:164980 HCAPLUS
 DN 126:142052
 TI Triterpene Saponins from *Cyclamen mirabile* and Their Biological Activities
 AU Calis, Ihsan; Satana, Mesut Ersan; Yuerueker, Aysen; Kelican, Pelin;
 Demirdamar, Ruemeysa; Alacam, Ruhi; Tanker, Nevin; Rueegger, Heinz;
 Sticher, Otto
 CS Faculty of Pharmacy, Hacettepe University, Ankara, TR-06100, Turk.
 SO Journal of Natural Products (1997), 60(3), 315-318
 CODEN: JNPRDF; ISSN: 0163-3864
 PB American Chemical Society
 DT Journal
 LA English
 AB Six saponins, cyclaminorin, deglucocyclamin, cyclacoumin, cyclamin, isocyclamin, and mirabilin (I) were isolated from the tubers of *Cyclamen mirabile*. I is a new natural compound, and its structure was established as 3-{O- β -[β -D-xylopyranosyl-(1 \rightarrow 2)]-[β -D-glucopyranosyl-(1 \rightarrow 6)]- β -D-glucopyranosyl-(1 \rightarrow 4)]-[β -D-glucopyranosyl-(1 \rightarrow 2)]- α -L-arabinopyranosyl}-3 β ,16 α ,28-trihydroxyolean-12-en-30-oic acid. The structure elucidation of this compound was accomplished using both spectral and chemical methods. Antimicrobial and uterocontractile activities of the saponins were also investigated.
 IT 23643-61-0, Deglucocyclamin
 RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)
 (triterpene saponins from *Cyclamen mirabile* and their biol. activities)
 RN 23643-61-0 HCAPLUS
 CN Oleanan-29-al, 13,28-epoxy-3-[(O- β -D-glucopyranosyl-(1 \rightarrow 2)-O- β -D-xylopyranosyl-(1 \rightarrow 2)- β -D-glucopyranosyl-(1 \rightarrow 4)]- α -L-arabinopyranosyl)oxy]-16-hydroxy-, (3 β ,16 α ,20 β)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L64 ANSWER 5 OF 47 HCPLUS COPYRIGHT 2006 ACS on STN
 AN 1996:542077 HCPLUS
 DN 125:270436
 TI Bioactive saponins and glycosides. III. Horse chestnut. (1): The structures, inhibitory effects on ethanol absorption, and hypoglycemic activity of escins Ia, Ib, IIa, IIb, and IIIa from the seeds of *Aesculus hippocastanum* L
 AU Yoshikawa, Masayuki; Murakami, Toshiyuki; Matsuda, Hisashi; Yamahara, Johji; Murakami, Nobutoshi; Kitagawa, Isao
 CS Kyoto Pharmaceutical Univ., Kyoto, 607, Japan
 SO Chemical & Pharmaceutical Bulletin (1996), 44(8), 1454-1464
 CODEN: CPBTAL; ISSN: 0009-2363
 PB Pharmaceutical Society of Japan
 DT Journal
 LA English
 AB Five bioactive triterpene oligoglycosides named escins Ia, Ib, IIa, IIb, and IIIa were isolated from the seeds of horse chestnut tree, *Aesculus hippocastanum* L. (Hippocastanaceae). The chemical structures of escins Ia, Ib, IIa, IIb, and IIIa were determined on the basis of chemical and physicochem. evidence, which included selective cleavage of the glucuronide linkage using photochem. reaction and lead tetraacetate decarboxylation reaction. Escins Ia, Ib, IIa, and IIb were found to exhibit an ethanol absorption-inhibitory effect and hypoglycemic activity in the oral glucose tolerance test in rats. Some structure-activity relationships are reported.
 IT 13844-01-4P, Barringtonogenol C
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation and reactions of intermediates in structure elucidation of escins from *Aesculus hippocastanum*)
 RN 13844-01-4 HCPLUS
 CN Olean-12-ene-3,16,21,22,28-pentol, (3 β ,16 α ,21 β ,22 α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L64 ANSWER 6 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1996:466649 HCAPLUS

DN 125:185760

TI Anti-inflammatory and analgesic activity of *Baccharis trimera*.

Identification of its active constituents

AU Gene, Rosa M.; Cartana, Carme; Adzet, Tomas; Marin, Esther; Parella, Teodor; Canigueral, Salvador

CS Fac. Farmacia, Univ. Barcelona, Barcelona, E-08028, Spain

SO *Planta Medica* (1996), 62(3), 232-235

CODEN: PLMEAA; ISSN: 0032-0943

PB Thieme

DT Journal

LA English

AB The butanolic fraction (BT-II) derived from the aqueous crude extract was prepared

from aerial parts of *Baccharis trimera* and assessed in anti-inflammatory, analgesia, and ulcerogenesis models. I.p. pretreatment with lyophilized BT-II, at doses ranging from 40 - 100 mg/kg, markedly inhibited carrageenan- and dextran-induced inflammation (70..4-90.8% and 25.7-71.3%, resp.) and weakly decreased C16-paf- and arachidonic acid-induced swelling (24.9-36.7 and 0-30.6%, resp.). No effect was observed, at the same doses, on zymosan-induced edema. The i.p. examination indicates that the anti-phlogistic action of BT-II was not due to an irritating effect at the injection site. Besides, BT-II reduced abdominal constrictions in mice following injection of acetic acid: at 50 mg///kg, it gave 67.4% inhibition and, at 100 mg/kg, 95.1%. The ulcerogenic assay showed that the incidence of ulcers after BT-II i.p. treatment was 2/6 at 50 and 6/6 at 100 mg/kg. Ulcerogenic indexes were 1.3 and 2.7 resp. These results indicate that *B. trimera* shows strong anti-inflammatory and analgesic properties which seem to be due, at least partly, to the inhibition of prostaglandin biosynthesis. The chromatog. separation of BT-II monitored by bio-assay (carrageenan-induced edema test in mice) was carried out. The active constituents were found to be mainly saponins in which echinocystic acid (or its enantiomer) is the major aglycon, and also rutin.

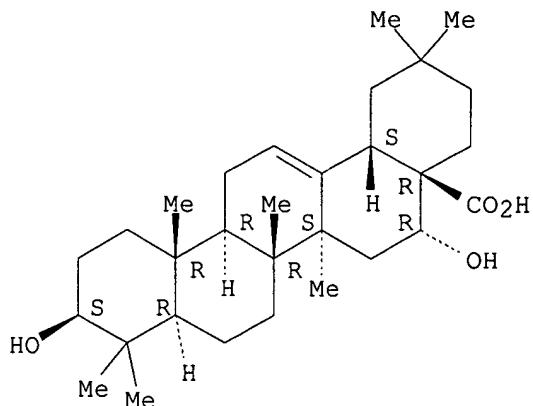
IT 510-30-5, Echinocystic acid

RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)

(antiinflammatory and analgesic activity of *Baccharis trimera* fraction)

RN 510-30-5 HCAPLUS
CN Olean-12-en-28-oic acid, 3,16-dihydroxy-, (3 β ,16 α)- (9CI) (CA
INDEX NAME)

Absolute stereochemistry. Rotation (+).



L64 ANSWER 7 OF 47 HCPLUS COPYRIGHT 2006 ACS on STN

AN 1995:1004428 HCAPLUS

DN 124:82092

TI Phospholipase D inhibitors from a Myrsine species.

AU Hegde, V. R.; Silver, J.; Patel, M. G.; Bryant, R.; Pai, J.; Das, P. R.; Puar, M. S.; Cox, P. A.

CS Schering-Plough Res. Inst., Kenilworth, NJ, 07033, USA

SO Journal of Natural Products (1995), 58(10), 1492-7

CODEN: JNPRDF; ISSN: 0163-3864

PB America

DT Journal

LA English

AB The phospholipase D-inhibitory activity of a methanol extract from the leaves of *M. australis*, has been attributed to two new saponins (I) and (II). I was assigned as 3-O- $\{\beta$ -D-xylopyranosyl-(1 \rightarrow 2)-O- β -D-glucopyranosyl-(1 \rightarrow 4)-[O- β -D-glucopyranosyl-(1 \rightarrow 2)]- α -L-arabinosyl]-16 α -hydroxy-13 β ,28-epoxyoleanane and II as 3 β -O- $\{\beta$ -D-rhamnopyranosyl-(1 \rightarrow 2)-O- β -D-glucopyranosyl-(1 \rightarrow 4)-[O- β -D-glucopyranosyl]- α -L-arabinopyranosyl]-16 α -hydroxy-13 β ,28-epoxyoleanane. I and II showed IC₅₀ values of 3 and 2 μ M, resp., vs. phorbol 12-myristate-13-acetate-stimulated phospholipase D in human promyelocytic leukemic (HL-60) cells. I and II also inhibited fMLP (formyl-Met-Leu-Phe)-stimulated phospholipase D with IC₅₀ values of 8 and 24 μ M, resp.

IT 126882-54-0P

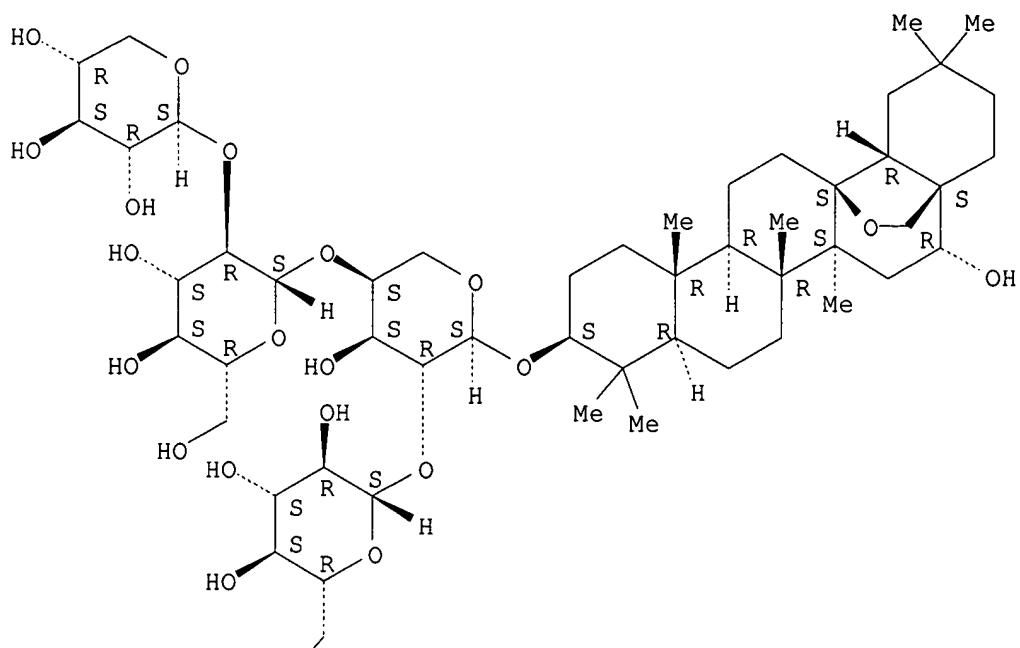
RL: PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (phospholipase D inhibitors from *Myrsine australis*)

RN 126882-54-0 HCAPLUS

CN α -L-Arabinopyranoside, (3 β ,16 α)-13,28-epoxy-16-hydroxyolean-3-yl 0- β -D-glucopyranosyl-(1 \rightarrow 2)-O-[0- β -D-xylopyranosyl-(1 \rightarrow 2)- β -D-glucopyranosyl-(1 \rightarrow 4)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

PAGE 1-A

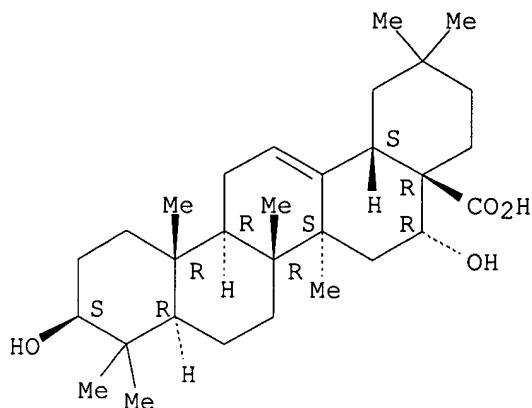


PAGE 2-A

HO

L64 ANSWER 8 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN
 AN 1995:904768 HCAPLUS
 DN 123:334728
 TI Triterpenoid antiviral activity against influenza A and B viruses
 AU Platanov, V. G.; Zorina, A. D.; Gordon, M. A.; Chizhov, N. P.; Balykina, L. V.; Mikhailov, Yu. D.; Ivanen, D. R.; Kvi, Tran Kim; Shavva, A. G.
 CS Nauchno-Issled. Inst. Grippa, Russia
 SO Khimiko-Farmatsevticheskii Zhurnal (1995), 29(2), 42-6
 CODEN: KHFZAN; ISSN: 0023-1134
 PB Meditsina
 DT Journal
 LA Russian
 AB Triterpenoids, derivs. of oleanane, ursane, lupane, dammarane were isolated or synthesized and tested for antiviral activity against influenza A and B viruses. Structure-activity relationship is discussed.
 IT 510-30-5, Echinocystic acid
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (triterpenoid antiviral activity against influenza and B viruses)
 RN 510-30-5 HCAPLUS
 CN Olean-12-en-28-oic acid, 3,16-dihydroxy-, (3 β ,16 α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



L64 ANSWER 9 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1995:891611 HCAPLUS

DN 124:233

TI Anti-AIDS agents, 21. Triterpenoid saponins as anti-HIV principles from fruits of *Gleditsia japonica* and *Gymnocladus chinensis*, and a structure-activity correlation

AU Konoshima, Takao; Yasuda, Ichiro; Kashiwada, Yoshiki; Cosentino, L. Mark; Lee, Kuo-Hsiung

CS Kyoto Pharmaceutical Univ., Kyoto, 607, Japan

SO Journal of Natural Products (1995), 58(9), 1372-7

CODEN: JNPRDF; ISSN: 0163-3864

PB American Society of Pharmacognosy

DT Journal

LA English

AB Gleditsia saponin C [1] and Gymnocladus saponin G [2] were isolated from *Gleditsia japonica* and *Gymnocladus chinensis*, resp., as anti-HIV principles. Compds. 1 and 2 demonstrated inhibitory effects against HIV replication in H-9 cells with EC₅₀ values of 1.1 and 2.7 μ M, resp. Evaluation of the anti-HIV activities of the prosapogenins of 1 and 2 suggested that the unusual monoterpenyl moieties are essential for their anti-HIV activity. Derivs. of echinocystic acid, the aglycon of compound 1, were also prepared and evaluated for inhibitory activity against HIV replication. 3,16-Di-O-acetylechinocystic acid was shown to be an anti-HIV agent with an EC₅₀ value of 2.3 μ M.

IT 510-30-5P

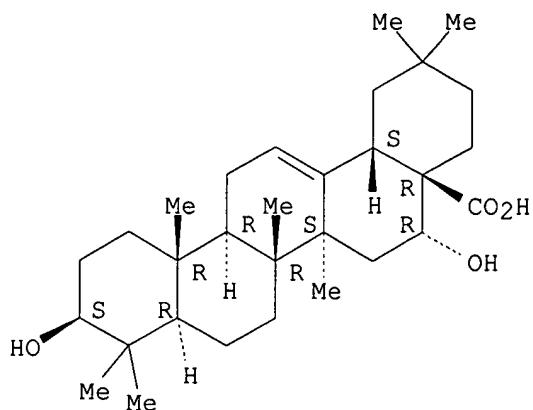
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PNU (Preparation, unclassified); PRP (Properties); RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(structure of triterpenoid saponins from fruits of *Gleditsia japonica* and *Gymnocladus chinensis* as anti-HIV principles)

RN 510-30-5 HCAPLUS

CN Olean-12-en-28-oic acid, 3,16-dihydroxy-, (3 β ,16 α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



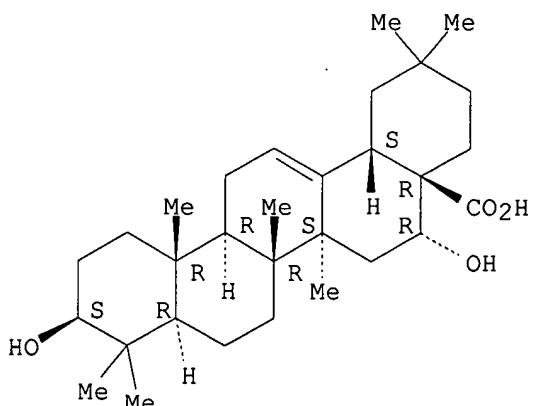
IT 510-30-5DP, Echinocystic acid, derivs.

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PNU (Preparation, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (structure of triterpenoid saponins from fruits of Gleditsia japonica and Gymnocladus chinensis as anti-HIV principles)

RN 510-30-5 HCPLUS

CN Olean-12-en-28-oic acid, 3,16-dihydroxy-, (3 β ,16 α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



L64 ANSWER 10 OF 47 HCPLUS COPYRIGHT 2006 ACS on STN

AN 1995:824313 HCPLUS

DN 123:275927

TI Some pharmacological studies of ardisiacrispin B, an utero-contracting saponin, isolated from Ardisia crispa

AU Jansakul, C.

CS Faculty Science, Prince Songkla University, Hat-Yai, Thailand

SO Journal of the Science Society of Thailand (1995), 21(1), 11-26

CODEN: VKSTDB; ISSN: 0303-8122

PB Science Society of Thailand

DT Journal

LA English

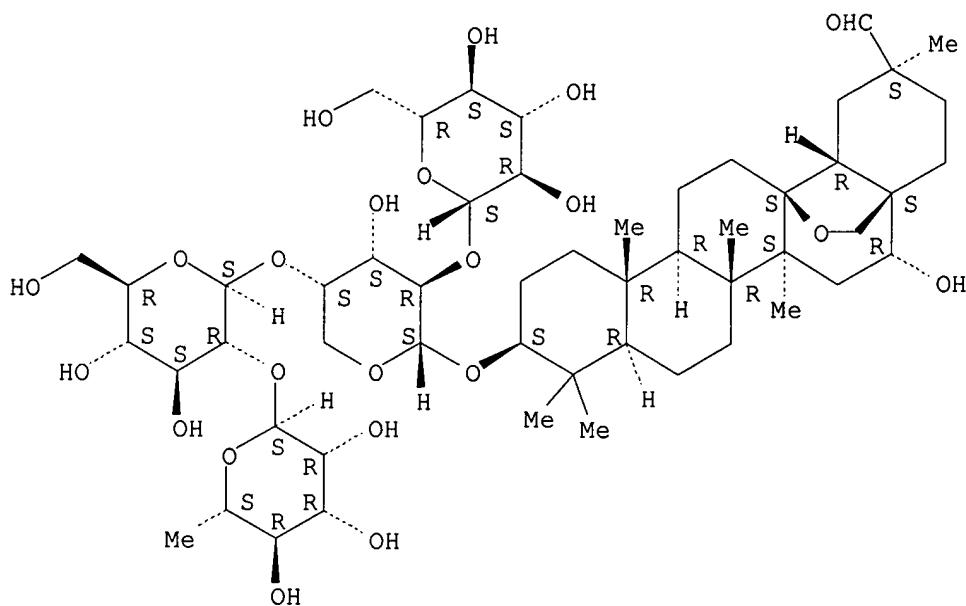
AB The present study aimed to characterize the pharmacol. action of the ardisiacrispin B. Studies were performed on in vitro preps. of uterine smooth muscle, small intestine and thoracic aorta (vascular smooth muscle) obtained from female rats in estrus. Dose-response curves (DR-curve) to ardisiacrispin B, prostaglandin E2 derivative (Nalador), oxytocin and acetylcholine chloride were obtained. The possible involvement of prostaglandin synthesis in the utero-contracting activity of ardisiacrispin B was explored by investigation of the DR-curve to ardisiacrispin B in the presence of 10-6 M indomethacin, a cyclo-oxygenase inhibitor. The local effects of the compound on uterine contractility and cervix softening were also studied in situ and in vitro resp. Ardisiacrispin B caused dose-dependent contraction of uterine smooth muscle, small intestine and thoracic aortae in a similar pattern to prostaglandin E2 derivative. Oxytocin also caused uterine strip contraction but had no effect on small intestine. Acetylcholine caused uterine and small intestine contraction in a different manner from that obtained with ardisiacrispin B. However, the presence of indomethacin did not alter the DR-curve to ardisiacrispin B of uterine smooth muscle. In the in situ expts., intra-uterine injections of ardisiacrispin B caused uterine contraction in a dose-dependent manner similar to those obtained from prostaglandin E2 with no changes in mean arterial blood pressure, except that the highest concentration of ardisiacrispin B (6mg/mL) caused lowering blood pressure in some animals. There were no signs of cervix softening after intra-uterine administration of either ardisiacrispin B or prostaglandin E2, when compared with intra-uterine injections of saline. These results suggest that ardisiacrispin B may exert a prostaglandin E2-like effect which may act at the prostaglandin E2-receptor but not by stimulation or enhancement of prostaglandin synthesis.

IT 112766-96-8, Ardisiacrispin B
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (pharmacol. studies of ardisiacrispin B as utero-contracting saponin isolated from Ardisia crispa in relation to cervix softening)

RN 112766-96-8 HCPLUS

CN Oleanan-29-al, 3-[(O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O- β -D-glucopyranosyl-(1 \rightarrow 4)-O- β -D-glucopyranosyl-(1 \rightarrow 2)]- α -L-arabinopyranosyl)oxy]-13,28-epoxy-16-hydroxy-, (3 β ,16 α ,20 β)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L64 ANSWER 11 OF 47 HCPLUS COPYRIGHT 2006 ACS on STN

AN 1995:441024 HCPLUS

DN 122:286616

TI Triterpenoid saponins from *Ardisia crenata* and their inhibitory activity on cAMP phosphodiesterase

AU Jia, Zhonghua; Koike, Kazuo; Nikaido, Tamotsu; Ohmoto, Taichi; Ni, Muyun

CS Dep. Pharmacognosy, Sch. Pharm. Sci., Toho Univ., Chiba, 274, Japan

SO Chemical & Pharmaceutical Bulletin (1994), 42(11), 2309-14

CODEN: CPBTAL; ISSN: 0009-2363

PB Pharmaceutical Society of Japan

DT Journal

LA English

AB Two novel triterpenoid saponins, ardisicrenoside C [3β -O- $\{\alpha$ -L-rhamnopyranosyl-(1 \rightarrow 2)- β -D-glucopyranosyl-(1 \rightarrow 4)-[β -D-glucopyranosyl-(1 \rightarrow 2)]- α -L-arabinopyranosyl]-16 α ,28-dihydroxy-olean-12-en-30-oic acid 30-O- β -D-glucopyranosyl ester] and ardisicrenoside D [3β -O- $\{\beta$ -D-xylopyranosyl-(1 \rightarrow 2)- β -D-glucopyranosyl-(1 \rightarrow 4)-[β -D-glucopyranosyl-(1 \rightarrow 2)]- α -L-arabinopyranosyl]-16 α ,28-dihydroxy-olean-12-en-30-oic acid 30-O- β -D-glucopyranosyl ester] were isolated from the roots of *Ardisia crenata*. Structure assignments are based on spectroscopic data including 2D-NMR (correlation spectroscopy (COSY), homonuclear Hartmann-Hahn spectroscopy (HOHAHA), heteronuclear correlated spectroscopy (HETCOR), heteronuclear multiple bond correlation (HMBC) and rotating frame NOE spectroscopy (ROESY)) expts. and some chemical reactions. In addition, the isolated saponins along with their prosapogenins and sapogenins have been evaluated for their inhibitory activity on cAMP phosphodiesterase as a primary screening test for new medicinal compds.

IT 23643-61-0 112766-96-8

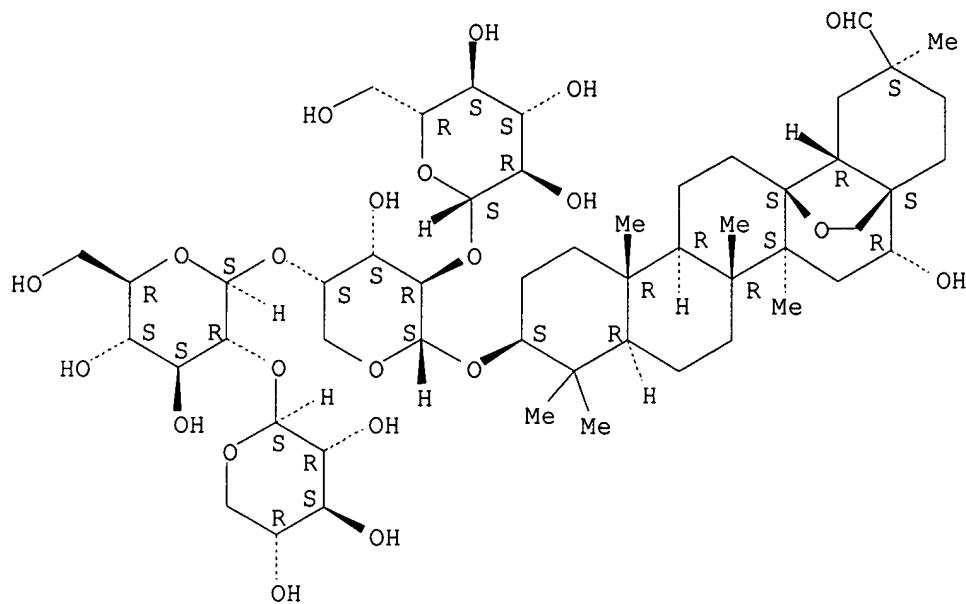
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study) (cAMP phosphodiesterase inhibitory activity of)

RN 23643-61-0 HCPLUS

CN Oleanan-29-al, 13,28-epoxy-3-[$(0$ - β -D-glucopyranosyl-(1 \rightarrow 2)-O- $(0$ - β -D-xylopyranosyl-(1 \rightarrow 2)- β -D-glucopyranosyl-(1 \rightarrow 4)]-

α -L-arabinopyranosyl)oxy]-16-hydroxy-, (3 β ,16 α ,20 β)-
(9CI) (CA INDEX NAME)

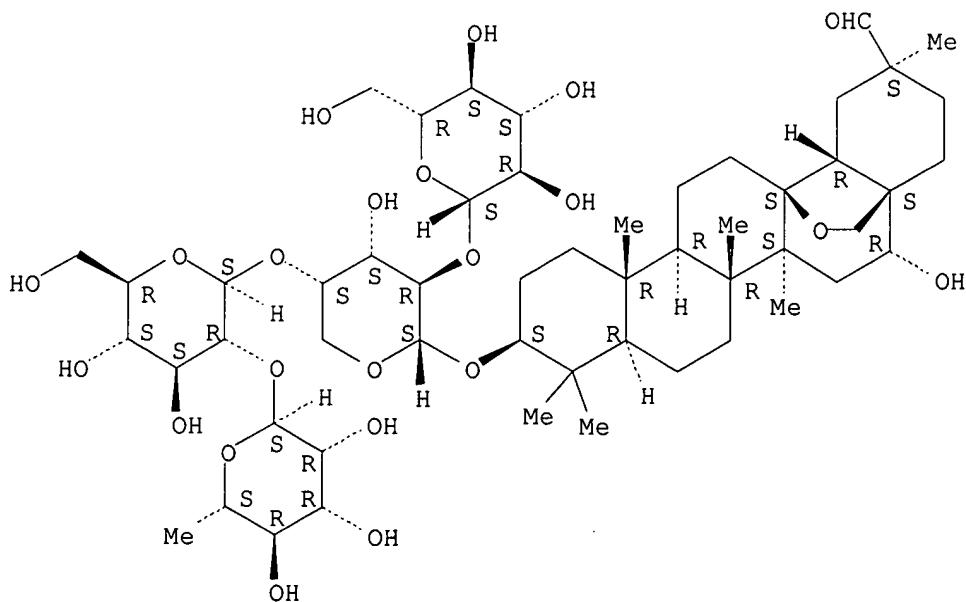
Absolute stereochemistry.



RN 112766-96-8 HCPLUS

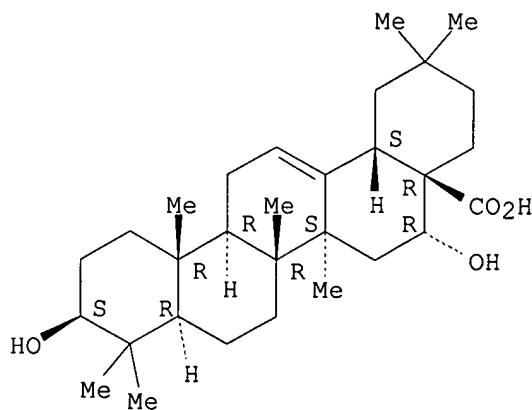
CN Oleanan-29-ol, 3-[(O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O- β -D-glucopyranosyl-(1 \rightarrow 4)-O-[β -D-glucopyranosyl-(1 \rightarrow 2)]- α -L-arabinopyranosyl)oxy]-13,28-epoxy-16-hydroxy-, (3 β ,16 α ,20 β)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L64 ANSWER 12 OF 47 HCPLUS COPYRIGHT 2006 ACS on STN
 AN 1995:274565 HCPLUS
 DN 122:128565
 TI Anti-inflammatory triterpene saponins of *Pithecellobium dulce*: characterization of an echinocystic acid bisdesmoside
 AU Sahu, Niranjan P.; Mahato, Shashi B.
 CS Indian Institute of Chemical Biology, Culcutta, 700 032, India
 SO Phytochemistry (1994), 37(5), 1425-7
 CODEN: PYTCAS; ISSN: 0031-9422
 PB Elsevier
 DT Journal
 LA English
 AB A new bisdesmodic triterpenoid saponin, dulcin was isolated from the seeds of *Pithecellobium dulce* and was identified as 3-O-[β -D-glucopyranosyl (1 \rightarrow 2)- α -L-arabinopyranosyl]-28-O-[β -D-xylopyranosyl (1 \rightarrow 6)- β -D-glucopyranosyl]-echinocystic acid. The known oleanolic acid saponin PE, oleanolic acid 3-O- β -D-glucopyranosyl 9 α -O- α -L-arabinopyranoside was also obtained. The structural features were elucidated by a combination of spectroscopic methods and some chemical transformations.
 IT 510-30-5, Echinocystic acid
 RL: PRP (Properties)
 (preparation of)
 RN 510-30-5 HCPLUS
 CN Olean-12-en-28-oic acid, 3,16-dihydroxy-, (3 β ,16 α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



L64 ANSWER 13 OF 47 HCPLUS COPYRIGHT 2006 ACS on STN
 AN 1992:524048 HCPLUS
 DN 117:124048
 TI HIV-1 and HIV-2 reverse transcriptases: a comparative study of sensitivity to inhibition by selected natural products
 AU Tan, Ghee T.; Miller, James F.; Kinghorn, A. Douglas; Hughes, Stephen H.; Pezzuto, John M.
 CS Coll. Pharm., Univ. Illinois, Chicago, IL, USA
 SO Biochemical and Biophysical Research Communications (1992), 185(1), 370-8
 CODEN: BBRCA9; ISSN: 0006-291X
 DT Journal
 LA English

AB One hundred and fifty six pure natural products, which had previously been tested against HIV-1 reverse transcriptase, were evaluated for HIV-2 reverse transcriptase inhibitory activity. Compds. that lacked effect in the HIV-1 reverse transcriptase system were found also to be inactive against HIV-2 reverse transcriptase. However, compds. belonging to the benzophenanthridine and protoberberine classes of alkaloids, certain flavanoids, the iridoid, fulvoplumierin, and the ansamycin antibiotic, daunomycin, exhibited similar potencies in both enzyme systems. In contrast, HIV-2 reverse transcriptase was observed to be four-fold more sensitive toward the inhibitory effects of the ipecac alkaloids, O-methylpsychotrine sulfate heptahydrate and psychotrine dihydrogen oxalate. Such differences in susceptibilities to inhibitors may indicate subtle dissimilarities in enzyme structure and function.

IT **465-95-2**

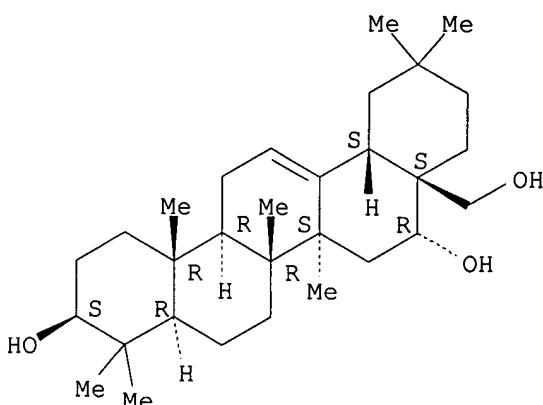
RL: BIOL (Biological study)

(human immunodeficiency virus 1 and 2 reverse transcriptase response to)

RN 465-95-2 HCPLUS

CN Olean-12-ene-3,16,28-triol, (3 β ,16 α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L64 ANSWER 14 OF 47 HCPLUS COPYRIGHT 2006 ACS on STN
 AN 1992:414282 HCPLUS

DN 117:14282

TI Triterpene glycosides of two Far Eastern species of *Codonopsis* Wall. genus

AU Gorovoi, P. G.; Alad'ina, N. G.

CS Tikhookean. inst. Bioorg. Khim., Vladivostok, USSR

SO Rastitel'nye Resursy (1991), 27(3), 91-3

CODEN: RRESA8; ISSN: 0033-9946

DT Journal

LA Russian

AB Triterpene glycosides are the active principle of the *Codonopsis* root Chinese drug of tonic and stimulating action. Search of prospective sources of this drug gave a yield 0.0045 and 0.0035 air-dried weight% triterpene glycosides from *C. lanceolata* and *C. ussuriensis* roots, resp. *C. lanceolata* contained 2 glycosides; codonoside B was the major glycoside and its aglycon, echinocystic acid, was found also in *C. ussuriensis* which contained 3 glycosides in approx. equal amts.

IT **510-30-5, Echinocystic acid**

RL: BIOL (Biological study)

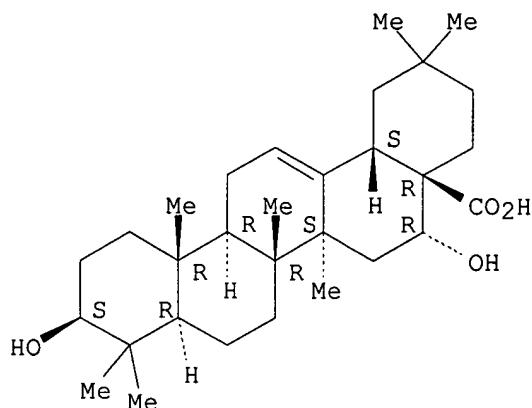
(of *Codonopsis lanceolata* and *C. ussuriensis* roots, medicinal uses in

relation to)

RN 510-30-5 HCAPLUS

CN Olean-12-en-28-oic acid, 3,16-dihydroxy-, (3 β ,16 α)- (9CI) (CA
INDEX NAME)

Absolute stereochemistry. Rotation (+).



L64 ANSWER 15 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1992:277 HCAPLUS

DN 116:277

TI Sterol and triterpene derivatives from plants inhibit the effects of a tumor promoter, and sitosterol and betulinic acid inhibit tumor formation in mouse skin two-stage carcinogenesis

AU Yasukawa, Ken; Takido, M.; Matsumoto, T.; Takeuchi, M.; Nakagawa, S.

CS Coll. Pharm., Nihon Univ., Funabashi, 274, Japan

SO Oncology (1991), 48(1), 72-6

CODEN: ONCOBS; ISSN: 0030-2414

DT Journal

LA English

AB A single topical application of 1 μ g 12-O-tetradecanoylphorbol-13-acetate (TPA) to the ears of mice induced edema. This TPA-induced inflammation was inhibited by 4-methylsterol and triterpene derivs. with ED₅₀ values of 0.1-3 μ mol. Phytosterols had only slight inhibitor effects. Application of 5 μ g TPA to mouse skin rapidly caused accumulation of ornithine decarboxylase (ODC). Sitosterol and lupane-type triterpene derivs. markedly inhibited this TPA-induced ODC accumulation. Betulinic acid (5 μ mol) markedly inhibited the promoting effect of 2.5 μ g TPA applied twice weekly on skin tumor formation in mice initiated with 50 μ g 7,12-dimethylbenz[a]anthracene, and 5 μ mol sitosterol caused slight suppression. Thus, the inhibitory effects of sterol and triterpene derivs. on TPA-induced inflammation roughly paralleled their inhibitory activities against tumor promotion.

IT 510-30-5, Echinocystic acid

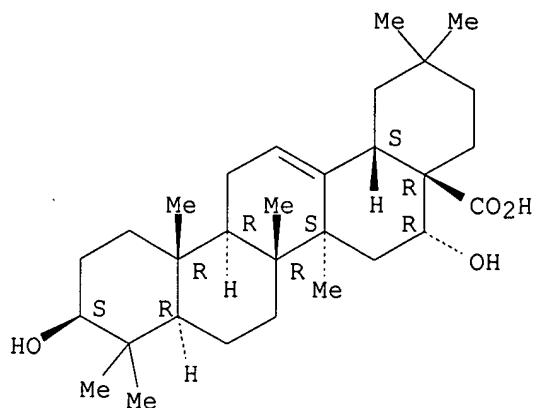
RL: PRP (Properties)

(antitumor and anti-inflammatory effects of, on skin)

RN 510-30-5 HCAPLUS

CN Olean-12-en-28-oic acid, 3,16-dihydroxy-, (3 β ,16 α)- (9CI) (CA
INDEX NAME)

Absolute stereochemistry. Rotation (+).



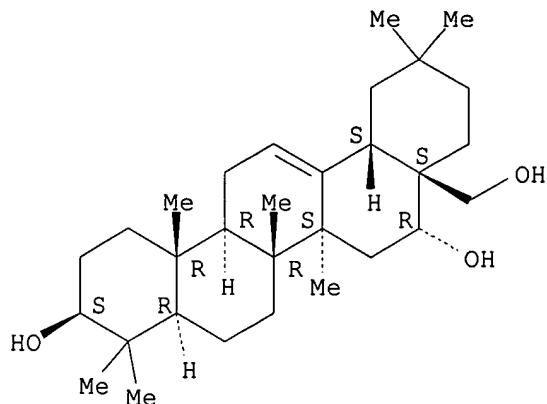
L64 ANSWER 16 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN
 AN 1991:224321 HCAPLUS
 DN 114:224321
 TI Evaluation of natural products as inhibitors of human immunodeficiency virus type 1 (HIV-1) reverse transcriptase
 AU Tan, Ghee T.; Pezzuoto, John M.; Kinghorn, A. Douglas; Hughes, Stephen H.
 CS Coll. Pharm., Univ. Illinois, Chicago, IL, 60612, USA
 SO Journal of Natural Products (1991), 54(1), 143-54
 CODEN: JNPRDF; ISSN: 0163-3864
 DT Journal
 LA English
 AB Inhibition of human immunodeficiency virus reverse transcriptase is currently considered a useful approach in the prophylaxis and intervention of acquired immunodeficiency syndrome (AIDS), and natural products have not been extensively explored as inhibitors of this enzyme. The reverse transcriptase assay developed for the detection of the enzyme in virions, involving poly rA.oligo dT and radio and radiolabeled thymidine 5'-triphosphate (TTP), can be applied as a simple method for screening the human immunodeficiency virus type 1 reverse transcriptase (HIV-1 RT) inhibitory potential of natural products; 156 pure natural products have been examined in this system. Benzophenanthridine alkaloids such as fagaronine chloride (I) and nitidine chloride, which are known inhibitors of avian myeloblastosis virus reverse transcriptase, demonstrated potent activity in the HIV-1 RT system, and T₅₀ (IC₅₀ 10 µg/mL) was adopted as a pos.-control substance. Addnl. inhibitors found were columbamine iodide and other protoberberine alkaloids, the isoquinoline alkaloid O-methylpsychotrine sulfate, and the iridoid fulvoplumierin. A number of indolizidine, pyrrolizidine, quinolizidine, indole, and other alkaloids, as well as compds. of many other structural classes, were found to be inactive. A total of 100 plant exts. have also been evaluated, and 15 of these exts. showed significant inhibitory activity. Because tannins and other polyphenolic compds. are potent reverse transcriptase inhibitors, methods were evaluated for the removal of these from plant exts. prior to testing. Polyphenolic compds. were found to be responsible for the activity demonstrated by the majority of plant exts. After appropriate tannin removal procedures were established, the bioassay system was shown to be generally applicable to both pure natural products and plant exts. The method also proved useful in directing an isolation procedure with Plumeria rubra to yield fulvoplumierin as an active compound (IC₅₀ 45 µg/mL).
 IT 465-95-2

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (reverse transcriptase of human immunodeficiency virus type 1 inhibition by)

RN 465-95-2 HCAPLUS

CN Olean-12-ene-3,16,28-triol, (3 β ,16 α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L64 ANSWER 17 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1990:491423 HCAPLUS

DN 113:91423

TI Dental caries prevention by traditional medicines. XII. Effect of components of Ganoderma lucidum on glucosyltransferase from Streptococcus mutans

AU Hada, Sumitra; Hattori, Masao; Namba, Tsuneo

CS Res. Inst. Wakan-Yaku, Toyama Med. Pharm. Univ., Toyama, 930-01, Japan

SO Wakan Iyaku Gakkaishi (1989), 6(2), 100-7

CODEN: WIGAES; ISSN: 0289-730X

DT Journal

LA English

AB By a bioassay-directed fractionation of an extract of the fruiting bodies of *G. lucidum*, which was previously shown to have in vitro anti-plaque action, ganoderic acids S1 and C2 were identified as inhibitory substances against glucosyltransferase (GTF) from a primary cariogenic bacterium, *S. mutans*. In addition, effect of some triterpenes and saponins on GTF was investigated.

IT 510-30-5, Echinocystic acid

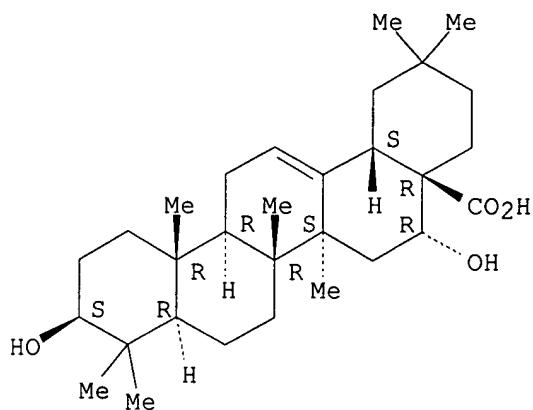
RL: BIOL (Biological study)

(glucosyltransferase of *Streptococcus mutans* response to, tooth caries prevention in relation to)

RN 510-30-5 HCAPLUS

CN Olean-12-en-28-oic acid, 3,16-dihydroxy-, (3 β ,16 α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



L64 ANSWER 18 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1990:195234 HCAPLUS

DN 112:195234

TI Molluscicidal triterpenoidal saponin from *Lysimachia sikokiana*

AU Kohda, Hiroshi; Takeda, Osamu; Tanaka, Seiji

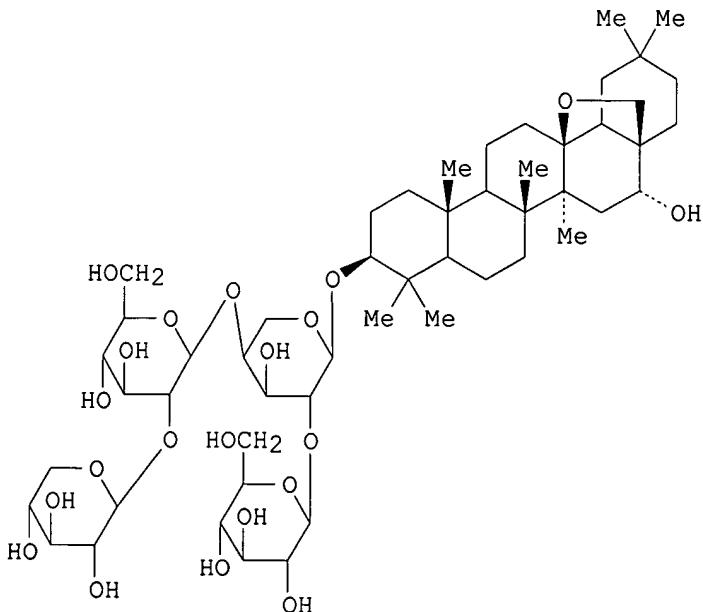
CS Sch. Med., Hiroshima Univ., Hiroshima, 734, Japan

SO Chemical & Pharmaceutical Bulletin (1989), 37(12), 3304-5
CODEN: CPBTAL; ISSN: 0009-2363

DT Journal

LA English

GI



I

AB The main molluscicidal activity of the methanol extract of *L. sikokiana* is due to several triterpenic saponins called sakuraso-saponins. The most active component was isolated from the aerial parts and elucidated as

3-O- β -xylopyranosyl-(1 \rightarrow 2)- β -glucopyranosyl-(1 \rightarrow 4)-
 [β -glucopyranosyl-(1 \rightarrow 2)]- α -arabinopyranosyl
 protoprimulagenin A (I), named lysikokianoside 1, on the basis of 1 H- and
 13 C-NMR spectral data and methylation anal. results.

IT 126882-54-0, Lysikokianoside 1

RL: BIOL (Biological study)

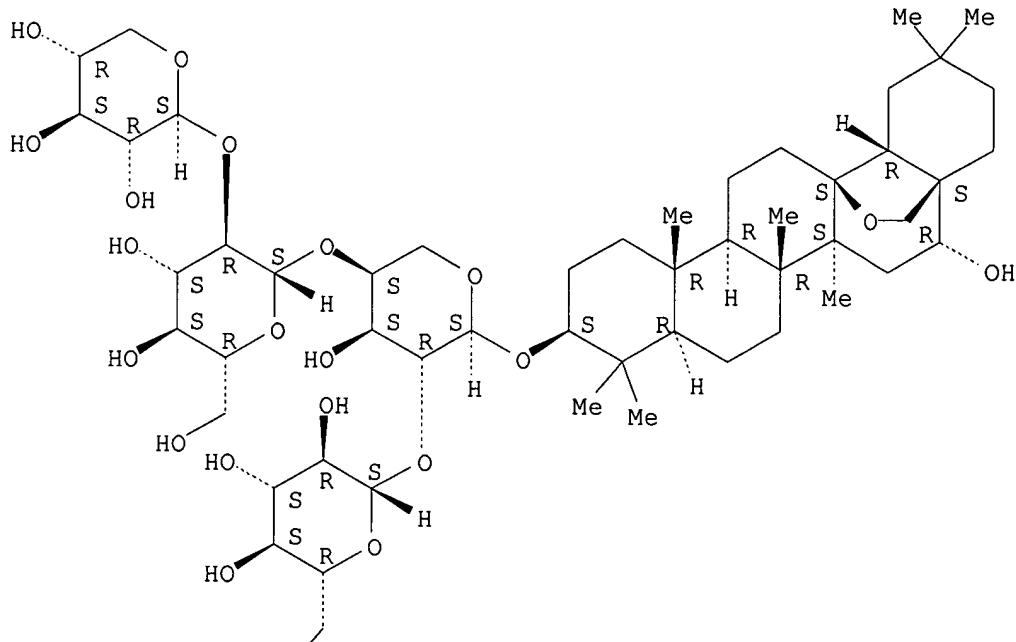
(from Lysimachia sikokiana, isolation and structure of)

RN 126882-54-0 HCPLUS

CN α -L-Arabinopyranoside, (3 β ,16 α)-13,28-epoxy-16-
 hydroxyoleanan-3-yl O- β -D-glucopyranosyl-(1 \rightarrow 2)-O-[O- β -D-
 xylopyranosyl-(1 \rightarrow 2)- β -D-glucopyranosyl-(1 \rightarrow 4)]- (9CI)
 (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

PAGE 1-A



PAGE 2-A



L64 ANSWER 19 OF 47 HCPLUS COPYRIGHT 2006 ACS on STN

AN 1989:587270 HCPLUS

DN 111:187270

TI Effect of a series of saponins extracted from tropical African plants on
 the release of luteinizing hormone by hypophyseal cells in culture

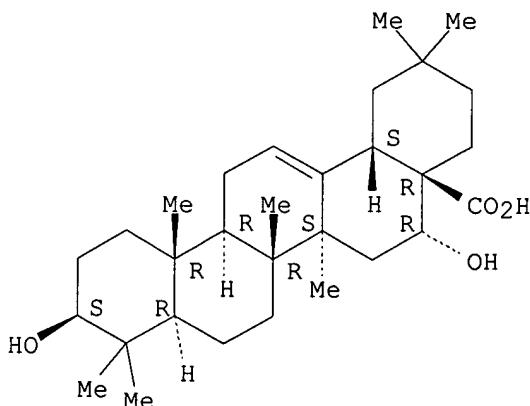
AU El Izzi, Asmahan; Duval, Jacques; Delaude, Clement

CS Lab. Endocrinol. Mol., Rennes, 35042, Fr.

SO Bulletin de la Societe Royale des Sciences de Liege (1989),
 58(2), 53-6

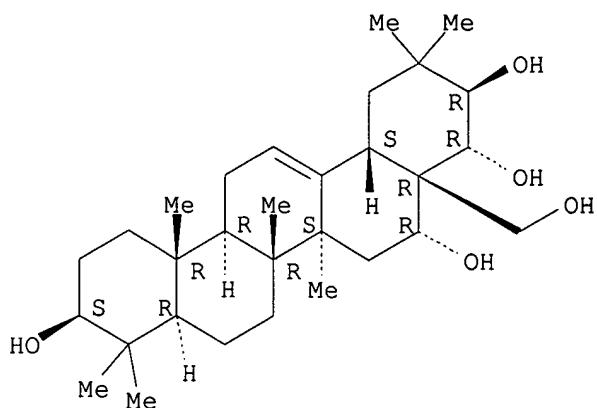
DT CODEN: BSRSA6; ISSN: 0037-9565
 LA Journal
 French
 AB Saponins extracted from African plants (Petersianthus macrocarpus, Albizzia adianthifolia, Millettia laurentii, Olax obtusifolia, Atroxima afzeliana, Securidaca longepedunculaia, Hovenia dulcis, Harpullia cupanoides, Majidea fosteri) were compared with LH-releasing hormone (10-7M) in vitro for their ability to release LH from cultured rat hypophyseal cells. The cells were exposed to 10 or 30 µg saponins/mL for 1 h. Saponins from H. cupanoides and M. fosteri (containing the saponogenin aglycons camelliagenin A, barrigenol A1, and jegosapogenol) were the most active, saponins from P. macrocarpus, A. adianthifolia, and S. longepedunculaia (containing the aglycons acacic acid, presenegenin, and others) were less active, and the remaining saponins had little activity.
 IT 510-30-5, Echinocystic acid 13844-01-4, Jegosapogenol
 53227-91-1, Camelliagenin A
 RL: BIOL (Biological study)
 (as saponin aglycon from African plants, LH release by hypophyseal cells response to)
 RN 510-30-5 HCPLUS
 CN Olean-12-en-28-oic acid, 3,16-dihydroxy-, (3 β ,16 α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



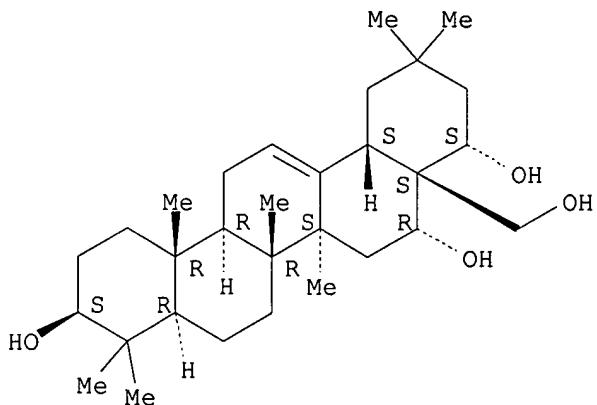
RN 13844-01-4 HCPLUS
 CN Olean-12-ene-3,16,21,22,28-pentol, (3 β ,16 α ,21 β ,22 α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 53227-91-1 HCAPLUS
 CN Olean-12-ene-3,16,22,28-tetrol, (3 β ,16 α ,22 α)- (9CI) (CA
 INDEX NAME)

Absolute stereochemistry.



L64 ANSWER 20 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN
 AN 1988:562908 HCAPLUS
 DN 109:162908
 TI Inhibitory effects of 12-O-tetradecanoylphorbol-13-acetate- and teleocidin
 B-induced Epstein-Barr virus by saponins and its related compounds
 AU Tokuda, Harukuni; Konoshima, Takao; Kozuka, Mutsuo; Kimura, Takeatsu
 CS Fac. Med., Kyoto Univ., Kyoto, 606, Japan
 SO Cancer Letters (Shannon, Ireland) (1988), 40(3), 309-17
 CODEN: CALEDQ; ISSN: 0304-3835
 DT Journal
 LA English
 AB The inhibitory effects of monoterpene and triterpene glycosides on the
 activation of Epstein-Barr virus (EBV) by 12-O-tetradecanoylphorbol-13-
 acetate (TPA) and teleocidin B were studied in Raji cells. Concomitant
 treatment of Raji cells with TPA or Teleocidin B and the glycosides showed
 the inhibition of EBV activation. In vitro structure-activity studies
 were conducted on a variety of triterpene glycosides having a 1-sugar
 chain (monodesmoside), a 2-sugar chain (bisdesmoside), and an acyl

side-chain. Among these glycosides, triterpene 3-O-glycosides and acylated saponins effectively inhibited EBV activation; therefore, the sugar chain at C-3 of the triterpene and(or) the acyl side-chain were determined to be essential for the inhibitory activities in this test system.

IT 510-30-5

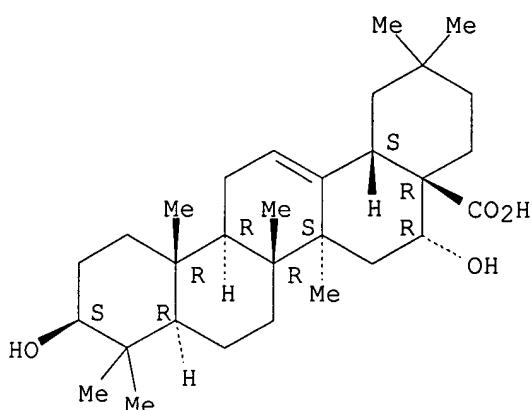
RL: BIOL (Biological study)

(Epstein-Barr virus activation inhibition by, structure in relation to)

RN 510-30-5 HCPLUS

CN Olean-12-en-28-oic acid, 3,16-dihydroxy-, (3 β ,16 α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



L64 ANSWER 21 OF 47 HCPLUS COPYRIGHT 2006 ACS on STN
AN 1988:179614 HCPLUS

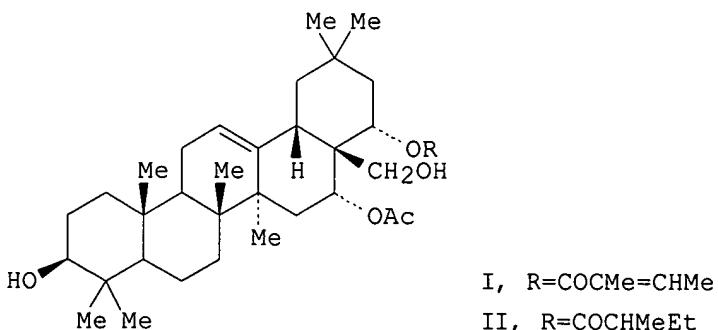
DN 108:179614

TI Pharmacological investigation of a glycosidal fraction isolated from *Maesa chisia* D. Don var. *angustifolia* Hook F and Th
AU Gomes, Aparna; Mohan Sharma, Radha; Ghatak, B. J. Ray
CS Dep. New Drug Dev., Indian Inst. Chem. Biol., Calcutta, 700 032, India
SO Indian Journal of Experimental Biology (1987), 25(12), 826-31
CODEN: IJEBA6; ISSN: 0019-5189

DT Journal

LA English

GI



AB The aglycon (a mixture of I and II) from the glycoside fraction isolated from *M. chisia angustifolia* leaves had anti-inflammatory, analgesic, and antipyretic activities in various pharmacol. tests in exptl. animals; the aglycon had activities similar to those of known nonsteroidal anti-inflammatory drugs. The aglycon had mild tranquilizing-sedative activity but had no effect on the cardiovascular system. Acute and chronic toxicity studies in mice and rats suggested that the aglycon had a large margin of safety.

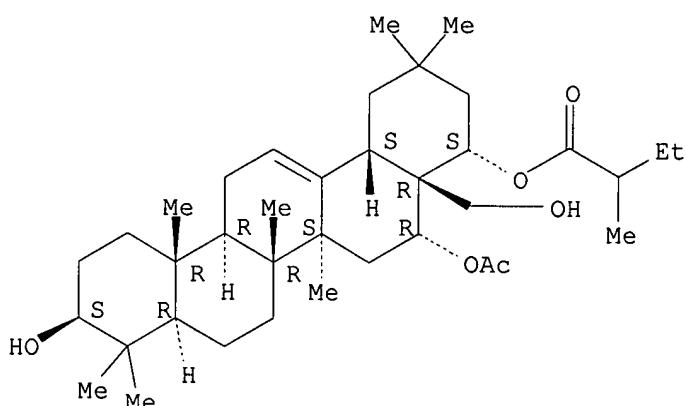
IT 111508-74-8

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(pharmacol. of)

RN 111508-74-8 HCAPLUS

CN Olean-12-ene-3,16,22,28-tetrol, 16-acetate 22-(2-methylbutanoate),
(3 β ,16 α ,22 α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L64 ANSWER 22 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1988:91689 HCAPLUS

DN 108:91689

TI Ardisiacrispin A and B, two utero-contracting saponins from *Ardisia crispa*

AU Jansakul, Chaweewan; Bauman, Herbert; Kenne, Lennart; Samuelsson, Gunnar

CS Dep. Pharmacogn., Univ. Uppsala, Uppsala, S-751 23, Swed.

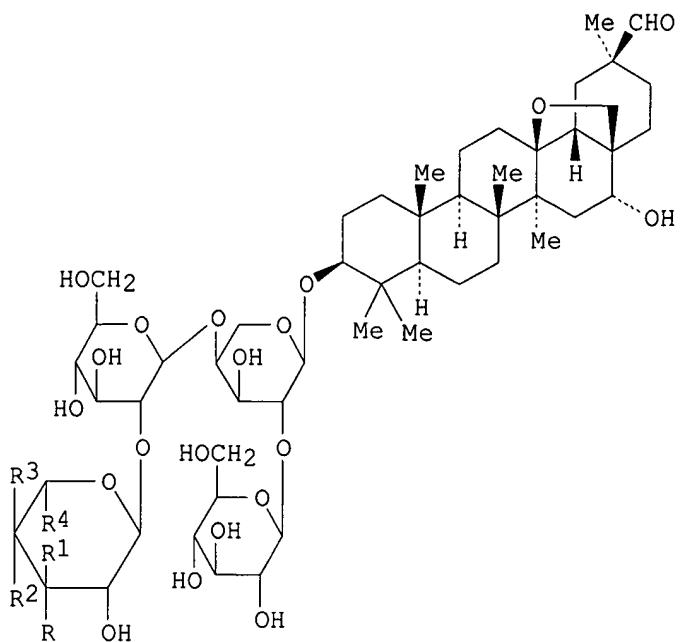
SO *Planta Medica* (1987), 53(5), 405-9

CODEN: PLMEAA; ISSN: 0032-0943

DT Journal

LA English

GI



I, R=R³=R⁴=H, R¹=R²=OH

II, R=R³=OH, R¹=R²=H, R⁴=Me

AB The main utero-contracting activity of an aqueous extract of *Ardisia crispa* is due to 2 new triterpenic saponins called ardisiacrispin A (I) and B (II), resp. The saponins were isolated by extraction with butanol, followed by chromatog. on silica gel columns. Final purification was obtained by reversed phase HPLC. ¹³C-NMR identified the aglycon of both saponins as cyclamiretin A. The structure of the ardisiacrispins was deduced by sugar and methylation anal. in combination with ¹H- and ¹³C-NMR spectral data.

I is 3 β -O-[- β -D-xylopyranosyl-(1 \rightarrow 2)-O- β -D-glucopyranosyl-(1 \rightarrow 4)-[O- β -D-glucopyranosyl-(1 \rightarrow 2)]- α -L-arabinopyranosyl]-16 α -hydroxy-13 β ,28-epoxyolean-30-al. II is 3 β -O-[\mathbf{\alpha}-L-rhamnopyranosyl-(1 \rightarrow 2)-O- β -D-glucopyranosyl-(1 \rightarrow 4)-[O- β -D-glucopyranosyl-(1 \rightarrow 2)]- α -L-arabinopyranosyl]-16 α -hydroxy-13 β ,28-

epoxyolean-30-al. At a concentration in the bath of 8 μ g/mL both saponins gave contractive responses of the isolated rat uterus corresponding to 84% of the contraction caused by a standard dose of acetylcholine (0.2 μ g/mL).

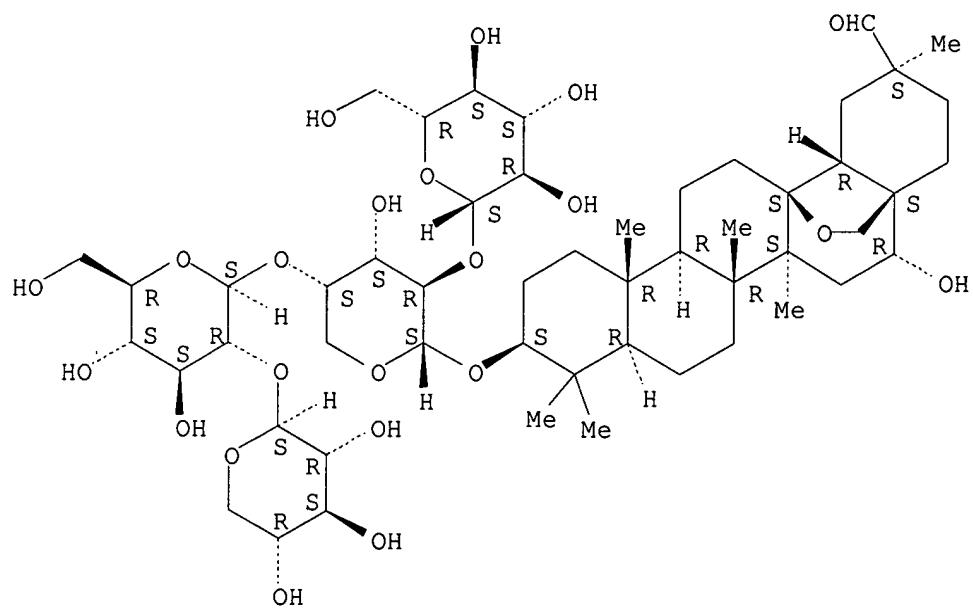
IT 23643-61-0P 112766-96-8P

RL: BAC (Biological activity or effector, except adverse); PUR (Purification or recovery); BIOL (Biological study); PREP (Preparation) (from *Ardisia crispa*, isolation and structure determination and uterine contracting activity of)

RN 23643-61-0 HCPLUS

CN Oleanan-29-al, 13,28-epoxy-3-[(O- β -D-glucopyranosyl-(1 \rightarrow 2)-O-[O- β -D-xylopyranosyl-(1 \rightarrow 2)- β -D-glucopyranosyl-(1 \rightarrow 4)]- α -L-arabinopyranosyl)oxy]-16-hydroxy-, (3 β ,16 α ,20 β)- (9CI) (CA INDEX NAME)

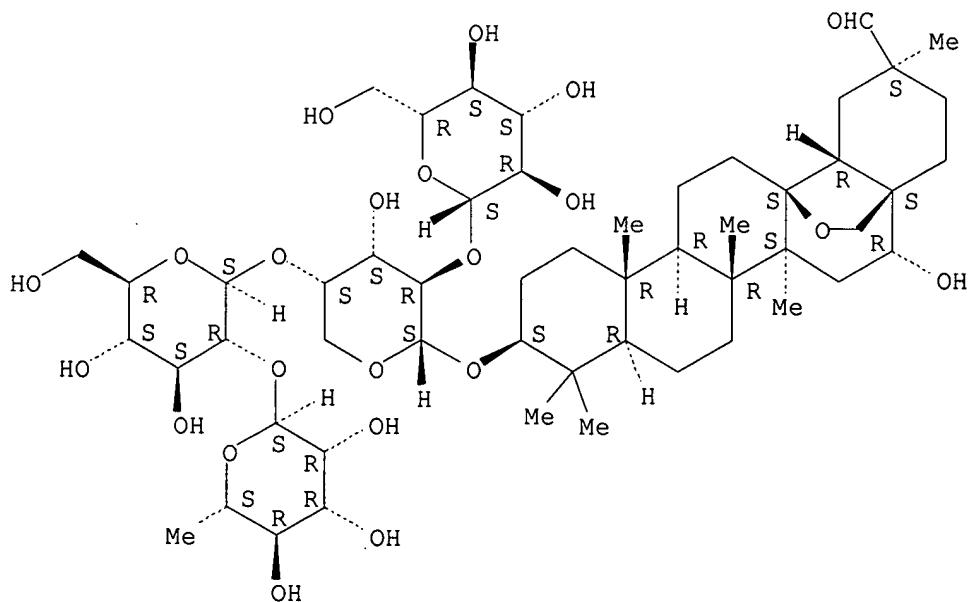
Absolute stereochemistry.



RN 112766-96-8 HCPLUS

CN Oleanan-29-ol, 3-[(O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O- β -D-glucopyranosyl-(1 \rightarrow 4)-O- β -D-glucopyranosyl-(1 \rightarrow 2)]- α -L-arabinopyranosyl)oxy]-13,28-epoxy-16-hydroxy-, (3 β ,16 α ,20 β)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L64 ANSWER 23 OF 47 HCPLUS COPYRIGHT 2006 ACS on STN

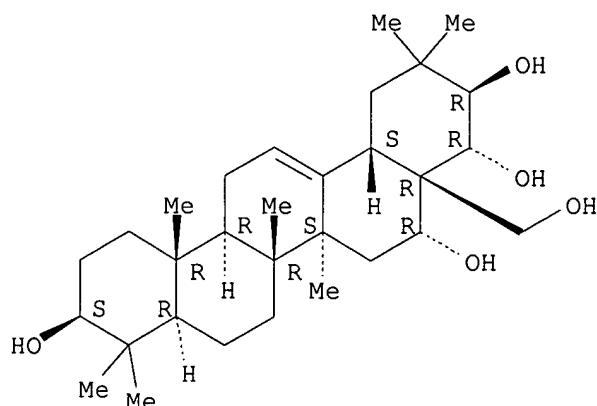
AN 1987:412737 HCPLUS

DN 107:12737

TI Triterpenoids of Aesculus indica

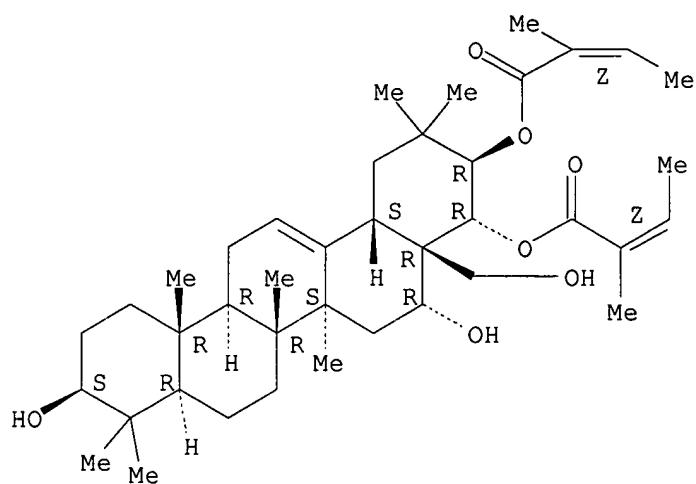
AU Sati, O. P.; Rana, U.
 CS Dep. Chem., Univ. Garhwal, Srinagar, India
 SO Pharmazie (1987), 42(2), 141
 CODEN: PHARAT; ISSN: 0031-7144
 DT Journal
 LA English
 AB 21,22-Diangeleylbarringtonol C, 21-angeloylbarringtonol C, and 22-angeloyl R1-barrigenol were isolated from acid hydrolyzates of *A. indica* seed saponins and barringtonol C, aescigenin, and protoaescigenin from the acid or alkaline hydrolyzates.
 IT 13844-01-4, Barringtonol C 92947-99-4
 RL: BIOL (Biological study)
 (of *Aesculus indica* seed saponin hydrolyzate)
 RN 13844-01-4 HCAPLUS
 CN Olean-12-ene-3,16,21,22,28-pentol, (3 β ,16 α ,21 β ,22 α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 92947-99-4 HCAPLUS
 CN Olean-12-ene-3,16,21,22,28-pentol, 21,22-bis[(2Z)-2-methyl-2-butenoate], (3 β ,16 α ,21 β ,22 α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).
 Double bond geometry as shown.



L64 ANSWER 24 OF 47 HCPLUS COPYRIGHT 2006 ACS on STN

AN 1987:9256 HCPLUS

DN 106:9256

TI Antitumor agents. 82. Cytotoxic saponins from *Aesculus hippocastanum*

AU Konoshima, Takao; Lee, Kuo Hsiung

CS Sch. Pharm., Univ. North Carolina, Chapel Hill, NC, 27514, USA

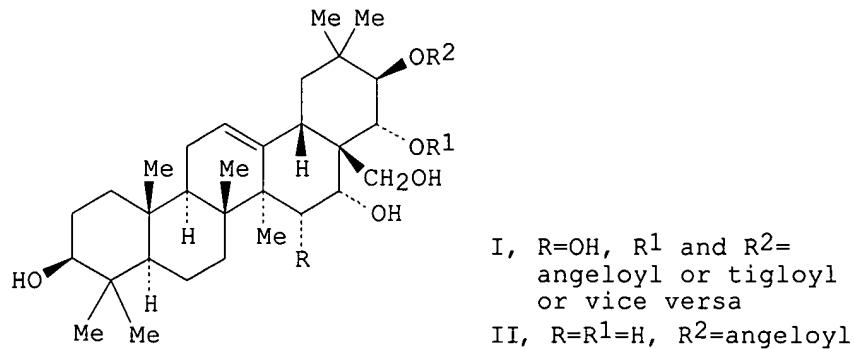
SO Journal of Natural Products (1986), 49(4), 650-6

CODEN: JNPRDF; ISSN: 0163-3864

DT Journal

LA English

GI



AB Two cytotoxic saponins, the new hippocesculin (I) [105661-18-5] and the known barringtogenol-C-21-angelate (II) [20089-98-9], were isolated from the acid hydrolysis product of BuOH exts. of fruits of *A. hippocastanum*. The structure of I was determined by hydrolysis, acetylation, acetonide formation and proton and ¹³C-NMR and high resolution mass spectral studies. The ED₅₀ of hippocesculin in KB cell culture was 3.6 µg/mL.

IT 13844-01-4P, Barringtonogenol-C

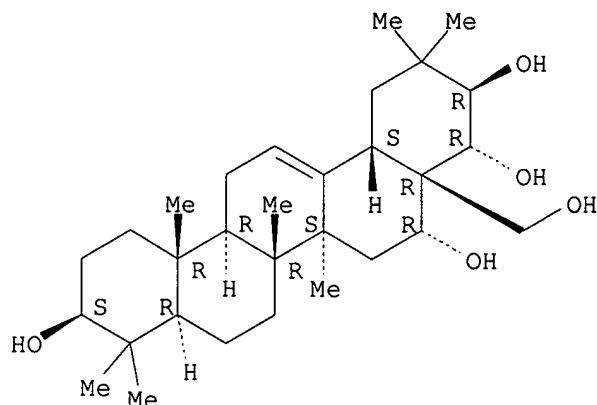
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and conversion to acetate or acetonide)

RN 13844-01-4 HCPLUS

CN Olean-12-ene-3,16,21,22,28-pentol, (3 β ,16 α ,21 β ,22 α)-

(9CI) (CA INDEX NAME)

Absolute stereochemistry.



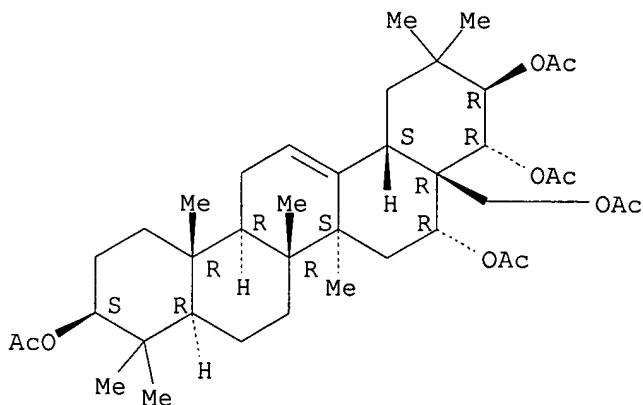
IT 14694-67-8P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 14694-67-8 HCPLUS

CN Olean-12-ene-3,16,21,22,28-pentol, pentaacetate,
(3β,16α,21β,22α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L64 ANSWER 25 OF 47 HCPLUS COPYRIGHT 2006 ACS on STN

AN 1986:218842 HCPLUS

DN 104:218842

TI Positive inotropic action of saponins on isolated atrial and papillary muscles from the guinea pig

AU Enomoto, Yoshikazu; Ito, Katsuaki; Kawagoe, Yasushi; Morio, Yasunori; Yamasaki, Yasundo

CS Fac. Agric., Univ. Miyazaki, Miyazaki, 889-21, Japan

SO British Journal of Pharmacology (1986), 88(1), 259-67

CODEN: BJPCBM; ISSN: 0007-1188

DT Journal

LA English

AB The effects of several saponins of animal and plant origin on the contractile activity of atrial and papillary muscles of the guinea-pig were tested. In a concentration of 1 + 10⁻⁵ M, holothurin-A (HLA) [38-26-6], holothurin-B [11052-32-7], echinoside-A [75410-53-6], echinoside-B [75410-52-5] and sakuraso-saponin (Saku) [59527-84-3] exhibited pos. inotropic and chronotropic actions whereas desacyl-jego-saponin [53962-19-9] and ginsenoside-Rd [52705-93-8] did not. Saponins having a pos. inotropic action caused hemolysis of rabbit erythrocytes whereas those without intropic action did not cause hemolysis. The pos. inotropic action of saponins was not affected by practolol, chlorpheniramine, cimetidine, and indomethacin. Verapamil (10⁻⁶ M) inhibited the inotropic actions due to HL-A and isoprenaline (10⁻⁸ M) to the same extent but had a small effect on those due to ouabain (10⁻⁷ M). In high K⁺ (30 mM K⁺) medium where the action potential and the contraction were depressed, HL-A, Saku, and isoprenaline restored the action potential and the contraction of the slow response type whereas ouabain failed to do so. In normal medium HL-A and Saku reduced the resting membrane potential by 15-20 mV. Apparently, modification of the Ca channel is involved in the pos. inotropic action of saponins.

IT 59527-84-3

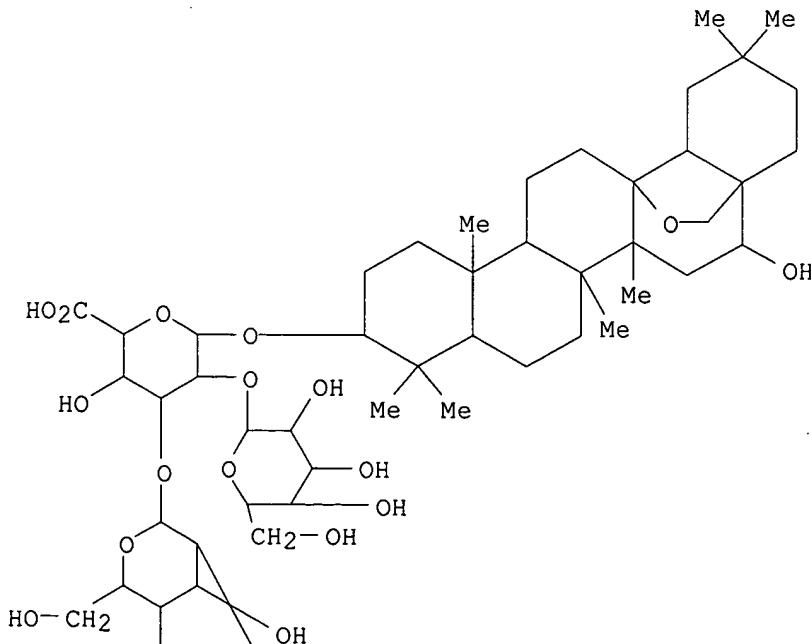
RL: BIOL (Biological study)

(heart inotropic action of, mechanism of)

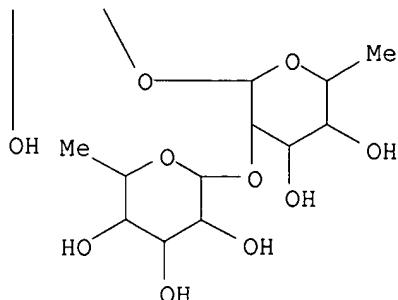
RN 59527-84-3 HCAPLUS

CN β -D-Glucopyranosiduronic acid, (3 β ,16 α)-13,28-epoxy-16-hydroxyoleanan-3-yl O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O- β -D-galactopyranosyl-(1 \rightarrow 3)-O- $[\beta$ -D-glucopyranosyl-(1 \rightarrow 2)]- (9CI) (CA INDEX NAME)

PAGE 1-A

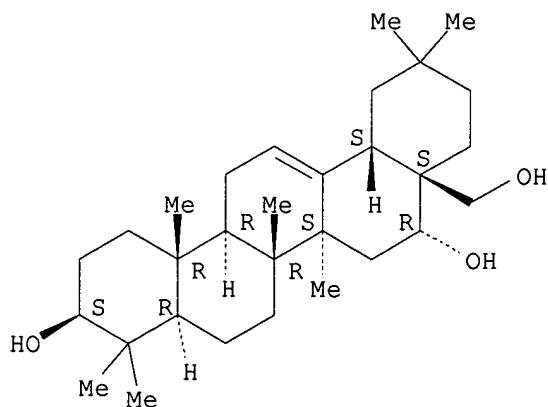


PAGE 2-A



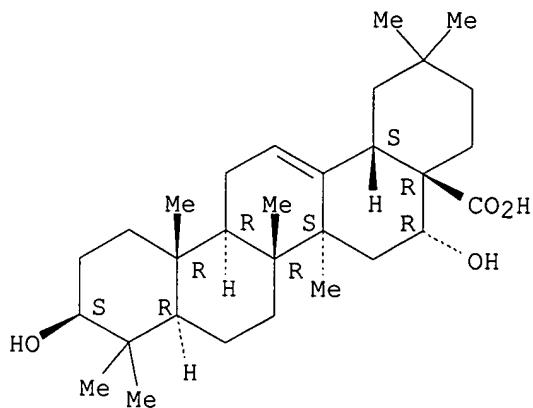
L64 ANSWER 26 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN
 AN 1984:588023 HCAPLUS
 DN 101:188023
 TI Chemical composition and contraceptive activity of *Androsace septentrionalis* L
 AU Mats, M. N.; Korkhov, V. V.; Krasnov, E. A.; Pirozhkova, N. M.
 CS Inst. Akush. Ginekol., Leningrad, USSR
 SO Rastitel'nye Resursy (1984), 20(3), 403-8
 CODEN: RRESA8; ISSN: 0033-9946
 DT Journal
 LA Russian
 AB In aerial parts of *A. septentrionalis* collected during flowering 15 triterpene glycosides, whose aglycons consisted of oleanolic acid and primulagenin, and >15 phenolic compds., among which quercetin, kaempferol, rutin, and caffeic acid were identified, were found. A preparation containing the total triterpene glycosides showed a contraceptive activity similar to that of ethynodiol-2-diol; the toxicity of the composition was low.
 IT 465-95-2D, glycosides
 RL: BIOL (Biological study)
 (aglycon, from *Androsace septentrionalis*)
 RN 465-95-2 HCAPLUS
 CN Olean-12-ene-3,16,28-triol, (3 β ,16 α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L64 ANSWER 27 OF 47 HCPLUS COPYRIGHT 2006 ACS on STN
 AN 1984:460195 HCPLUS
 DN 101:60195
 TI High-performance liquid chromatography of oleanane-type triterpenes
 AU Burnouf-Radosevich, Mirjana; Delfel, Norman E.
 CS North. Reg. Res. Cent., Dep. Agric., Peoria, IL, 61604, USA
 SO Journal of Chromatography (1984), 292(2), 403-9
 CODEN: JOCRAM; ISSN: 0021-9673
 DT Journal
 LA English
 AB Seven oleanane-type triterpenes and sitosterol [83-46-5], which may be present together in natural mixts., were successfully resolved by normal phase high-performance liquid chromatog. on a silica gel column. A rapid isocratic separation was achieved using a ternary solvent system of hexane-iso-PrOH-MeOH (96:3.5:0.5). Derivatization was not required for compds. that were detected by UV absorption at 210 nm. This method, applied to qual. and quant. anal. of triterpenes extracted from seeds and callus tissue culture of Chenopodium quinoa, was efficient, highly reproducible and sensitive.
 IT 510-30-5
 RL: ANT (Analyte); ANST (Analytical study)
 (determination of, in Chenopodium quinoa by high-performance liquid chromatog.)
 RN 510-30-5 HCPLUS
 CN Olean-12-en-28-oic acid, 3,16-dihydroxy-, (3 β ,16 α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



L64 ANSWER 28 OF 47 HCPLUS COPYRIGHT 2006 ACS on STN
 AN 1984:451757 HCPLUS
 DN 101:51757
 TI Natural products from the Vietnamese plants. 11. Constituents from the barks of Aralia chinensis (Araliaceae)
 AU Lischewski, M.; Viet Nam, V.; Phiet, H. V.; Schmidt, J.; Adam, G.
 CS Inst. Biochem. Pflanzen, Akad. Wiss. DDR, Halle/Saale, DDR-4010, Ger. Dem. Rep.
 SO Pharmazie (1984), 39(4), 276-7
 CODEN: PHARAT; ISSN: 0031-7144
 DT Journal
 LA German
 AB Oleanolic acid, echinocystic acid, and hederagenin were isolated from the

bark of *A. chinensis* in addition to sitosterol, stigmasterol, campesterol, and esculetin di-Me ether.

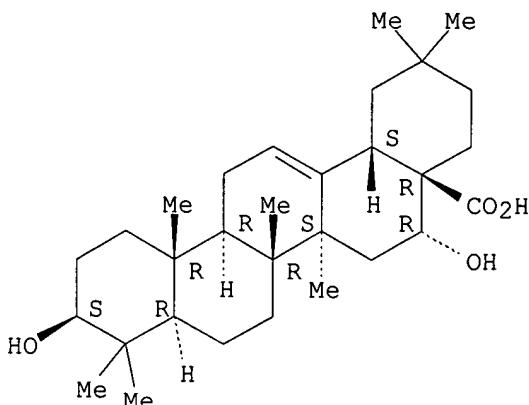
IT 510-30-5

RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)
(of *Aralia chinensis* bark)

RN 510-30-5 HCPLUS

CN Olean-12-en-28-oic acid, 3,16-dihydroxy-, (3 β ,16 α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



L64 ANSWER 29 OF 47 HCPLUS COPYRIGHT 2006 ACS on STN

AN 1983:221879 HCPLUS

DN 98:221879

TI Determination and schematization of the relative strength for stronger solvents in liquid-solid chromatography by using triterpenoid sapogenins as solutes

AU Hara, Shoji; Kunihiro, Kazuo; Yamaguchi, Hiroyuki

CS Tokyo Coll. Pharm., Hachioji, 192-03, Japan

SO Yakugaku Zasshi (1983), 103(2), 231-5

CODEN: YKKZAJ; ISSN: 0031-6903

DT Journal

LA Japanese

AB To optimize a solvent system systematically for liquid-solid chromatog. separation, the strength indexes of stronger solvents such as Et2O [60-29-7], EtOAc [141-78-6], Me2CO [67-64-1], THF [109-99-9], dioxan [123-91-1] and 2-propanol [67-63-0] were determined on the basis of a linear relationship between the logarithm of the capacity ratios and the logarithm of the solvent composition in binary systems containing n-hexane [110-54-3] as diluent.

A new procedure for the graphic schematization of the relative strength and equieluotropic composition of stronger solvents is elaborated. The exptl. results obtained with triterpenoid sapogenins were compared with the L. R. Snyder's (1968) solvent strength parameter and R. Neher's (1964) calcn. for predicting the equieluotropic solvent composition and the differences among 3 strength parameters are discussed.

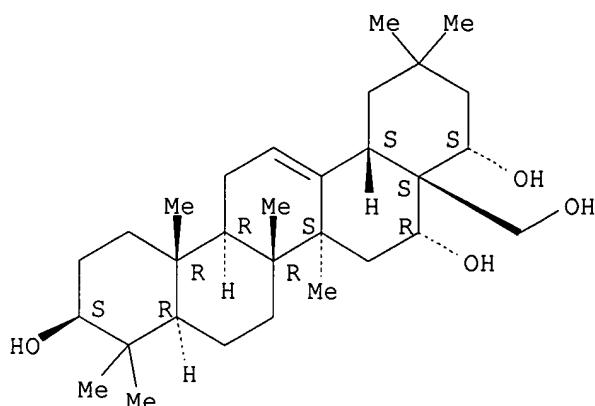
IT 53227-91-1

RL: ANST (Analytical study)
(capacity ratio of, in binary solvent systems for liquid-solid chromatog.)

RN 53227-91-1 HCPLUS

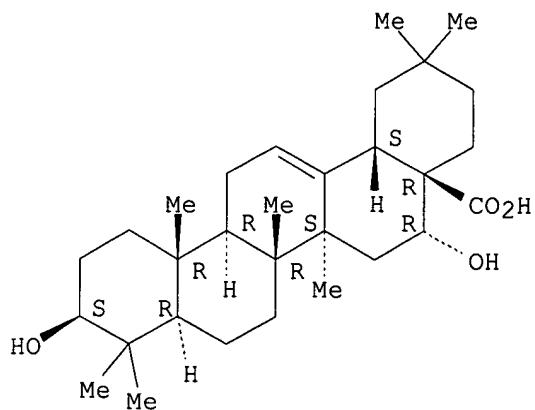
CN Olean-12-ene-3,16,22,28-tetrol, (3 β ,16 α ,22 α)- (9CI) (CA
INDEX NAME)

Absolute stereochemistry.



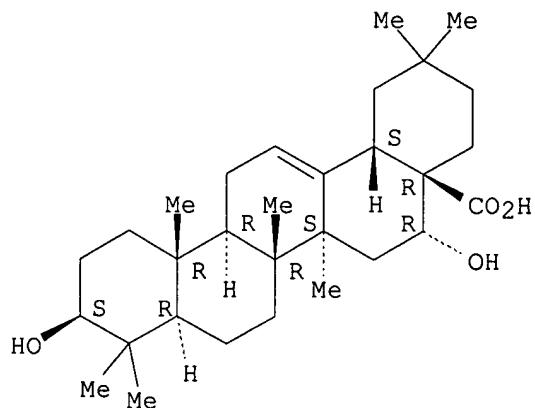
L64 ANSWER 30 OF 47 HCPLUS COPYRIGHT 2006 ACS on STN
 AN 1980:64626 HCPLUS
 DN 92:64626
 TI Steroid and triterpenoid saponins as spermicidal agents
 AU Banerji, R.; Srivastava, A. K.; Misra, G.; Nigam, S. K.; Singh, S.; Nigam, S. C.; Saxena, R. C.
 CS Dep. Bot., Gorakhpur Univ., Gorakhpur, India
 SO Indian Drugs (1979), 17(1), 6-8
 CODEN: INDRBA; ISSN: 0019-462X
 DT Journal
 LA English
 AB Saponins extracted from the variety of Indian plants have spermicidal activity at 0.004-0.125%. An acacic acid saponin from *Acacia concinna* bark and an oleanolic acid saponin and proceric acid saponin mixture from *Albizzia procera* seed were most active.
 IT 510-30-5D, saponin
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study) (isolation and spermicidal activity of)
 RN 510-30-5 HCPLUS
 CN Olean-12-en-28-oic acid, 3,16-dihydroxy-, (3 β ,16 α)- (9CI) (CA
INDEX NAME)

Absolute stereochemistry. Rotation (+).

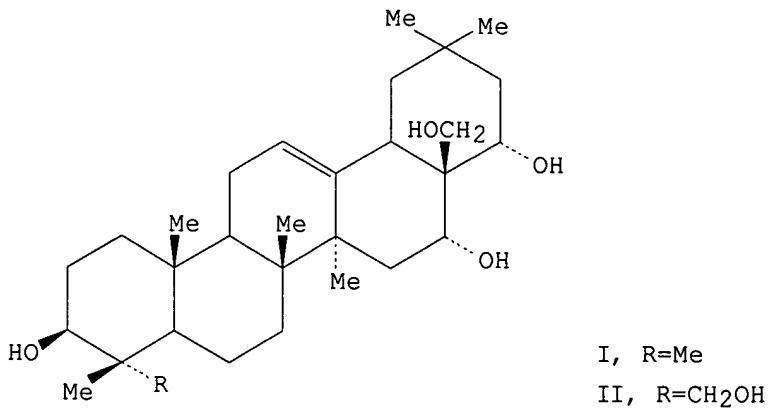


L64 ANSWER 31 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 1980:28458 HCAPLUS
DN 92:28458
TI Study on "Chu-Suk". VI. Prosapogenin in pods of Gleditschia officinalis
AU Lee, Eun Ock; Yu, Chae Seun
CS Coll. Pharm., Sookmyung Women's Univ., Seoul, S. Korea
SO Saengyak Hakhoechi (1979), 9(2), 93-7
CODEN: SYHJAM; ISSN: 0253-3073
DT Journal
LA Korean
AB From the crude saponin obtained from the pods of Gleditschia officinalis 7
spots were identified by thin layer chromatog. and gleditschia B was
present in the highest amount. Ten kinds of prosapogenins were identified
from the partial hydrolyzates of crude saponin. Prosapogenin E contained
oleanolic acid [508-02-1] as a saponin and prosapogenin F contained
echinocystic acid [510-30-5] as the saponin. Hydrolysis of
crude saponin yielded glucose and rhamnose and the same sugars were also
identified from the mixture of prosapogenin E and F.
IT 510-30-5
RL: BIOL (Biological study)
(from Gleditschia officinalis prosapogenins)
RN 510-30-5 HCAPLUS
CN Olean-12-en-28-oic acid, 3,16-dihydroxy-, (3 β ,16 α)- (9CI) (CA
INDEX NAME)

Absolute stereochemistry. Rotation (+).



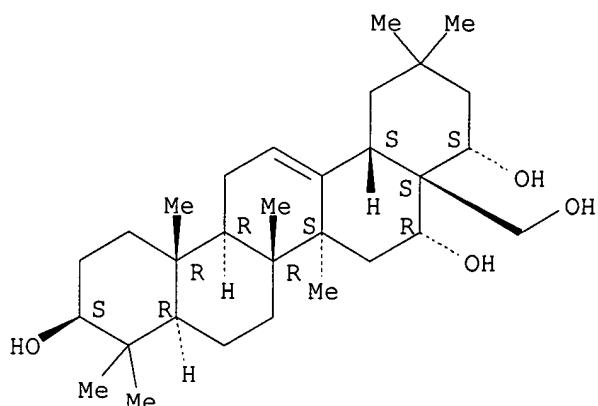
L64 ANSWER 32 OF 47 HCPLUS COPYRIGHT 2006 ACS on STN
 AN 1979:427215 HCPLUS
 DN 91:27215
 TI Isolation of saponin structures from the roots of *Lysimachia mauritiana* Lam
 AU Usmanghani, K.
 CS Fac. Pharm. Sci., Osaka Univ., Osaka, Japan
 SO Pakistan Journal of Scientific and Industrial Research (1977), 20(6), 393-5
 CODEN: PSIRAA; ISSN: 0030-9885
 DT Journal
 LA English
 GI



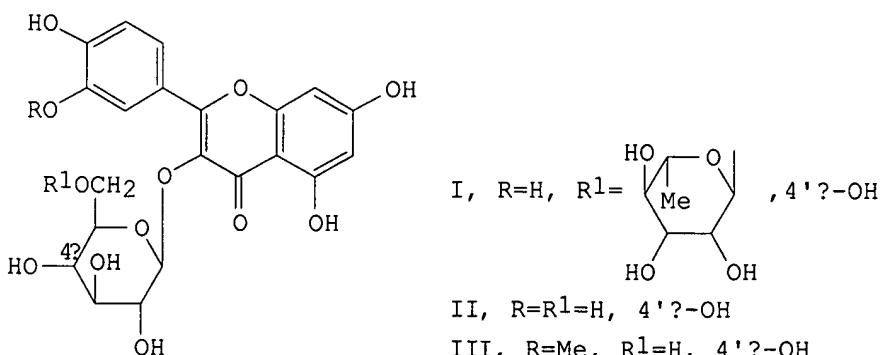
AB A crude saponin fraction of *L. mauritiana* root extract was hydrolyzed with ethanolic HCl. Thin-layer chromatog. of the resultant saponin mixture showed 6 triterpenoids. Camelliagenin A (I; R = Me) [53227-91-1] and camelliagenin C (II; R = CH₂OH) [14440-27-8] were identified as the new compds. in the saponin fraction.
 IT 53227-91-1
 RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)

(of *Lysimachia mauritiana*)
 RN 53227-91-1 HCAPLUS
 CN Olean-12-ene-3,16,22,28-tetrol, (3 β ,16 α ,22 α)- (9CI) (CA
 INDEX NAME)

Absolute stereochemistry.



L64 ANSWER 33 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN
 AN 1979:76462 HCAPLUS
 DN 90:76462
 TI Studies on the constituents of *Bupleurum rotundifolium* L. I
 AU Inoue, Osamu; Ogihara, Yukio
 CS Fac. Pharm. Sci., Nagoya City Univ., Nagoya, Japan
 SO Shoyakugaku Zasshi (1978), 32(2), 100-3
 CODEN: SHZAAY; ISSN: 0037-4377
 DT Journal
 LA Japanese
 GI



AB Rutin (I) [153-18-4], isoquercitrin (II) [21637-25-2] and cacticin (III) [6743-92-6] were extracted from leaves and stems of *B. rotundifolium*, and phytosterol, oleanolic acid [508-02-1] and echinocystic acid [510-30-5] from stems of the medicinal plant. The components were separated by thin-layer chromatog. or droplet countercurrent chromatog. and identified by spectrophotometric and chemical methods.

IT 510-30-5

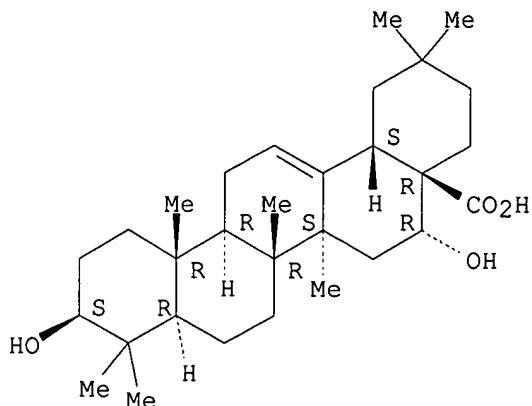
RL: PROC (Process)

(isolation of, from *Bupleurum rotundifolium*)

RN 510-30-5 HCPLUS

CN Olean-12-en-28-oic acid, 3,16-dihydroxy-, (3 β ,16 α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



L64 ANSWER 34 OF 47 HCPLUS COPYRIGHT 2006 ACS on STN

AN 1978:424706 HCPLUS

DN 89:24706

TI Constitution of scheffleroside - a spermicidal saponin from *Schefflera capitata*

AU Jain, G. K.; Sarin, J. P. S.; Khanna, N. M.

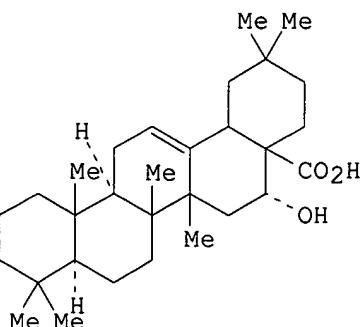
CS Cent. Drug. Res. Inst., Lucknow, India

SO Indian Journal of Chemistry, Section B: Organic Chemistry Including Medicinal Chemistry (1977), 15B(12), 1139-41
CODEN: IJSBDB; ISSN: 0376-4699

DT Journal

LA English

GI



Fucose-Galactose-Glucuronic acid-O-

I

AB A new saponin named as scheffleroside was isolated from *S. capitata* and on acid hydrolysis gave D-(+)-fucose (1 mol), D-(+)-galactose (1 mol), D-(+)-glucuronic acid (1 mol), and echinocystic acid (1 mol). Structure I

IT has been tentatively assigned to scheffleroside.

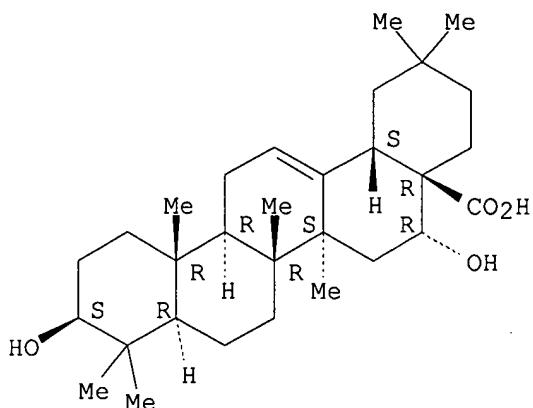
510-30-5

RL: RCT (Reactant); RACT (Reactant or reagent)
(constituent, of scheffleroside)

RN 510-30-5 HCPLUS

CN Olean-12-en-28-oic acid, 3,16-dihydroxy-, (3 β ,16 α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



L64 ANSWER 35 OF 47 HCPLUS COPYRIGHT 2006 ACS on STN

AN 1978:11956 HCPLUS

DN 88:11956

TI A new method for quantitative determination of primulic acid in Primula species

AU Szilagyi, I.; Kernoczy, Zs.

CS Inst. Med. Plant Res., Budakalasz, Hung.

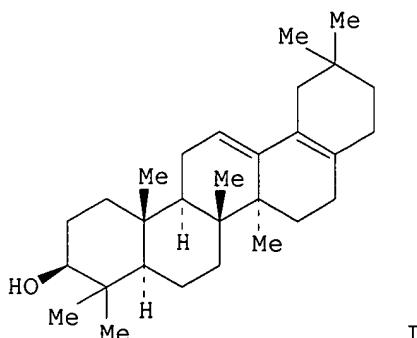
SO Planta Medica (1977), 31(2), 103-8

CODEN: PLMEAA; ISSN: 0032-0943

DT Journal

LA German

GI



AB Total primulic acid and primulagenin A and primulagenin B were quant. determined in Primula species by the formation of a diene chromophore (I) through methanolysis with HCl followed by extraction into heptane. The

extinction values at 243 nm were directly and linearly related to the concentration of the test solution. It was identified as aegiceradienol. The sensitivity of the method was 10 $\mu\text{g/mL}$, with standard derivation $\pm 5\%$. Using this method, *P. veris* was found to contain more total primulic acid as well as more primulagenin A and B than *P. vulgaris*.

IT 465-95-2

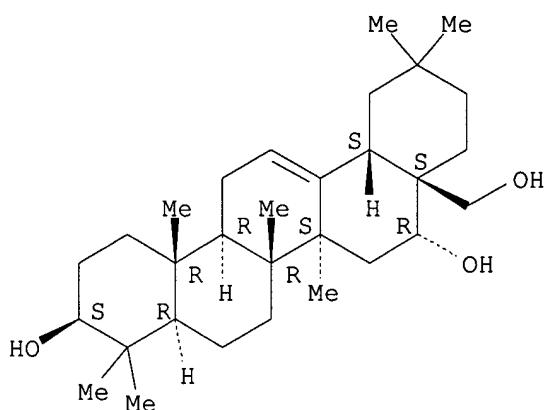
RL: ANST (Analytical study)

(isomers of, determination of, in *Primula* species, colorimetric)

RN 465-95-2 HCPLUS

CN Olean-12-ene-3,16,28-triol, (3 β ,16 α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L64 ANSWER 36 OF 47 HCPLUS COPYRIGHT 2006 ACS on STN

AN 1977:96051 HCPLUS

DN 86:96051

TI Gas-liquid chromatography of steroid and triterpene saponins using water vapor as the carrier gas

AU Krokhmalyuk, V. V.

CS USSR

SO Issled. Obl. Farm. Khim. (1975), 151-6. Editor(s): Prokopishin, V. I. Publisher: "Shtiintsa", Kishinev, USSR.

CODEN: 34OHAQ

DT Conference

LA Russian

AB Gas-liquid chromatog. of 11 triterpene saponins, 4 Me esters of triterpene saponins, and 12 steroid saponins using water vapor (220°) as the mobile phase is described. This method is faster than that using He as the carrier gas, does not require preconversion of the saponins and steroids into volatile derivs., and results in longer retention times. However, the flame-ionization detector is less sensitive to differences in the compds. being analyzed when water vapor is used as the carrier gas. Possible use of this method in analyzing the composition of pharmaceutical preps. is discussed.

IT 510-30-5

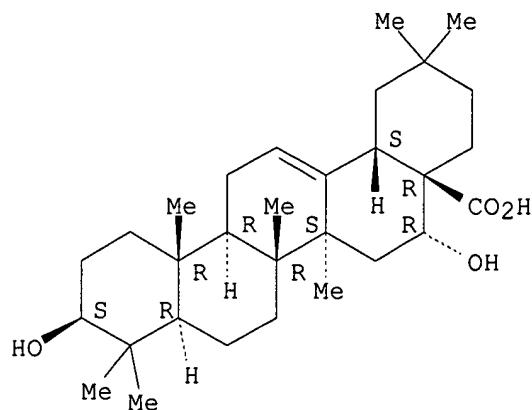
RL: ANT (Analyte); ANST (Analytical study)

(determination of, by gas-liquid chromatog., water vapor as carrier gas in)

RN 510-30-5 HCPLUS

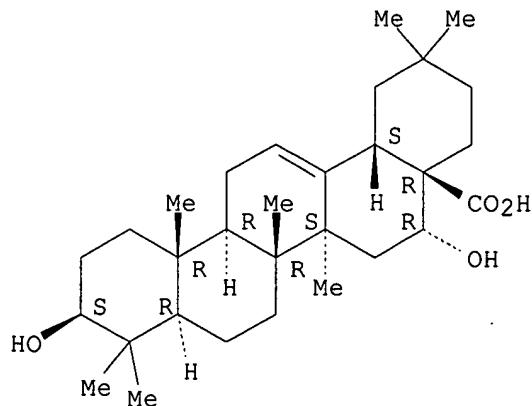
CN Olean-12-en-28-oic acid, 3,16-dihydroxy-, (3 β ,16 α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



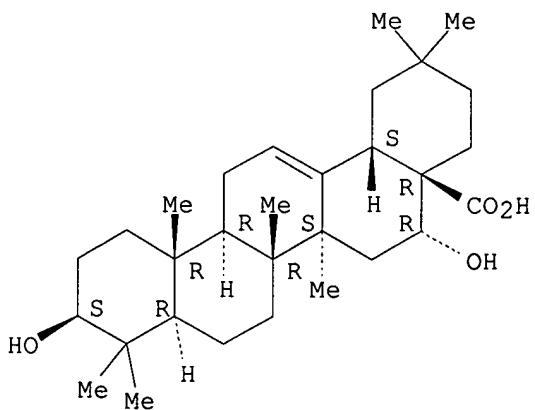
L64 ANSWER 37 OF 47 HCPLUS COPYRIGHT 2006 ACS on STN
 AN 1976:102371 HCPLUS
 DN 84:102371
 TI Sterols and triterpenoids from *Codonopsis lanceolata*
 AU Yang, Han Suk; Choi, Sung Sook; Han, Byung Hoon; Kang, Sam Sik; Woo, Won Sick
 CS Natl. Prod. Res. Inst., Seoul Natl. Univ., Seoul, S. Korea
 SO Yakhak Hoechi (1975), 19(3), 209-12
 CODEN: YAHOA3; ISSN: 0513-4234
 DT Journal
 LA English
 AB The roots of *Codonopsis lanceolata* contained α -spinasterol, Δ^7 -stigmastenol, oleanolic acid, echinocystic acid, and an unidentified triterpene acid, m.p. 249°.
 IT 510-30-5
 RL: BOC (Biological occurrence); BSU (Biological study, unclassified);
 BIOL (Biological study); OCCU (Occurrence)
 (of *Codonopsis lanceolata*)
 RN 510-30-5 HCPLUS
 CN Olean-12-en-28-oic acid, 3,16-dihydroxy-, (3 β ,16 α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



L64 ANSWER 38 OF 47 HCPLUS COPYRIGHT 2006 ACS on STN
 AN 1975:64390 HCPLUS
 DN 82:64390
 TI Chemical study of *Piptadeniastrum africanum*. I. Aglycone glycoside
 AU Comeau, Louis C.; Druet, Danielle; Braun, Jean Antonine
 CS Lab. Chim Org. Biol., Fac. Sci. Abidjan, Abidjan, Cote d'Ivoire
 SO Bulletin de la Societe Chimique de France (1974), 11, Pt. 2,
 2643-6
 CODEN: BSCFAS; ISSN: 0037-8968
 DT Journal
 LA French
 AB The defatted, dried bark of *P. africanum* yielded about half its weight to
 EtOH extraction. Evaporation of the extract, solution in MeOH and
 precipitation with Me₂CO, gave a
 red, hygroscopic powder (I). Addition of aqueous Na₂CO₃ to a MeOH solution of
 I
 precipitated the phenolics as a dark blue solid, red in aqueous solution. The
 phenolic-free MeOH solution, evaporated to dryness, hydrolyzed 3 hr at
 100° with Kiliani's mixture, gave a precipitate of highly colored aglycones,
 which were acetylated and then fractionated by column chromatog. on silica
 to give 2 major aglycones, B and C, as well as a minor 1, A. Aglycones B
 and C were identified, resp., as oleanolic acid [508-02-1] and
 echinocystic acid [510-30-5].
 IT 510-30-5
 RL: BOC (Biological occurrence); BSU (Biological study, unclassified);
 BIOL (Biological study); OCCU (Occurrence)
 (of *Piptadeniastrum africanum*)
 RN 510-30-5 HCPLUS
 CN Olean-12-en-28-oic acid, 3,16-dihydroxy-, (3 β ,16 α)- (9CI) (CA
 INDEX NAME)

Absolute stereochemistry. Rotation (+).



L64 ANSWER 39 OF 47 HCPLUS COPYRIGHT 2006 ACS on STN
 AN 1970:53412 HCPLUS
 DN 72:53412
 TI Structural specificity of saponin hemolysis. I. Triterpene saponins and
 aglycons
 AU Schloesser, Eckart; Wulff, G.
 CS Inst. Pflanzenkr., Univ. Bonn, Bonn, Fed. Rep. Ger.
 SO Zeitschrift fuer Naturforschung, Teil B: Anorganische Chemie, Organische

Chemie, Biochemie, Biophysik, Biologie (1969), 24(10), 1284-90
 CODEN: ZENBAX; ISSN: 0044-3174

DT Journal
 LA German

AB A large number of saponins and aglycons of the triterpene type were tested for hemolytic activity using cattle erythrocytes, in vitro. For optimum hemolytic activity, the aglycons required a polar grouping in ring A and a moderately polar grouping in ring D or E. Compds. containing a 16 α -OH or 16 keto group together with a 3 β -OH group had the highest hemolytic potential. The distance of 10.5 Å between 3 β -OH and 16 α -OH was of special significance. Acylation of either OH resulted in loss of activity. For saponins with a sugar chain on 3 β -OH, the distance between the strong and the weak polar group was less critical. The composition of the sugar chain had a certain influence on the hemolytic power. A polar grouping in ring D and (or) E, such as a sugar chain or a number of OH groups, induced inactivation.

IT 465-95-2 510-30-5 13844-01-4

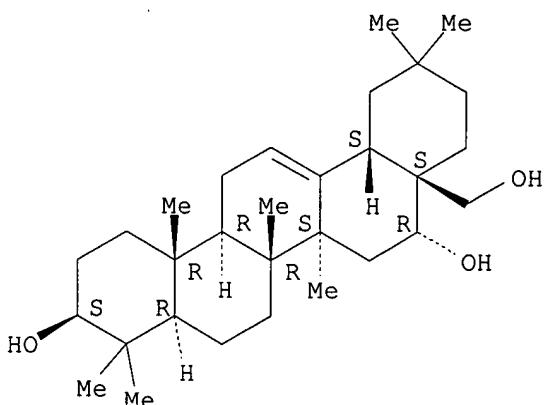
53227-91-1

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
 (hemolytic activity of)

RN 465-95-2 HCPLUS

CN Olean-12-ene-3,16,28-triol, (3 β ,16 α)- (9CI) (CA INDEX NAME)

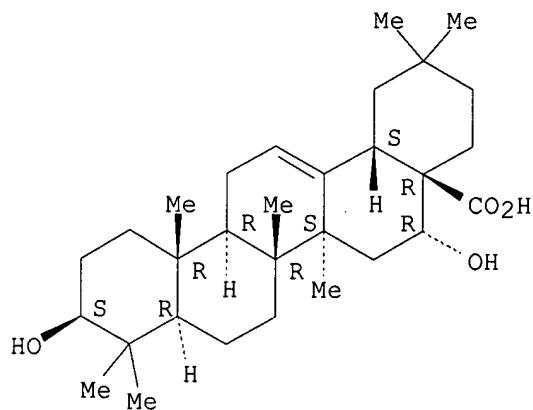
Absolute stereochemistry.



RN 510-30-5 HCPLUS

CN Olean-12-en-28-oic acid, 3,16-dihydroxy-, (3 β ,16 α)- (9CI) (CA INDEX NAME)

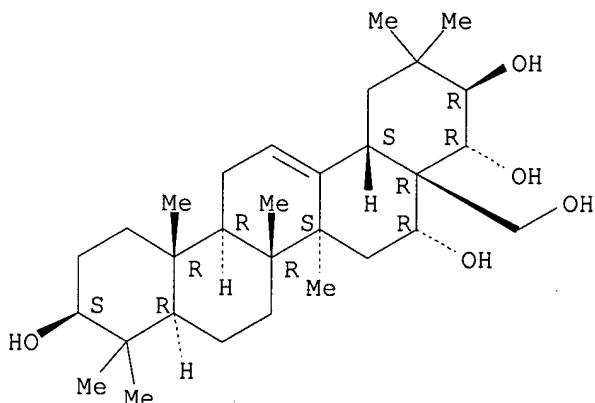
Absolute stereochemistry. Rotation (+).



RN 13844-01-4 HCPLUS

CN Olean-12-ene-3,16,21,22,28-pentol, (3β,16α,21β,22α)- (9CI) (CA INDEX NAME)

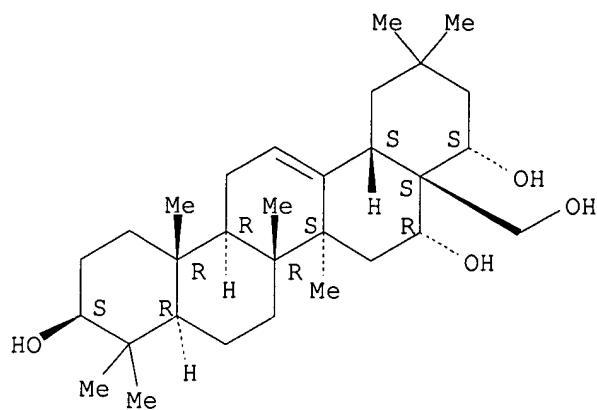
Absolute stereochemistry.



RN 53227-91-1 HCPLUS

CN Olean-12-ene-3,16,22,28-tetrol, (3β,16α,22α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L64 ANSWER 40 OF 47 HCPLUS COPYRIGHT 2006 ACS on STN

AN 1966:59186 HCPLUS

DN 64:59186

OREF 64:11028e-f

TI Thin-layer chromatography of tetra- and pentacyclic triterpenes and related compounds

AU Murakami, Takao; Itokawa, Hideji; Uzuki, Fumiko; Sawada, Naotoshi

CS Coll. Sci., Tokyo

SO Chemical & Pharmaceutical Bulletin (1965), 13(11), 1346-52

CODEN: CPBTAL; ISSN: 0009-2363

DT Journal

LA English

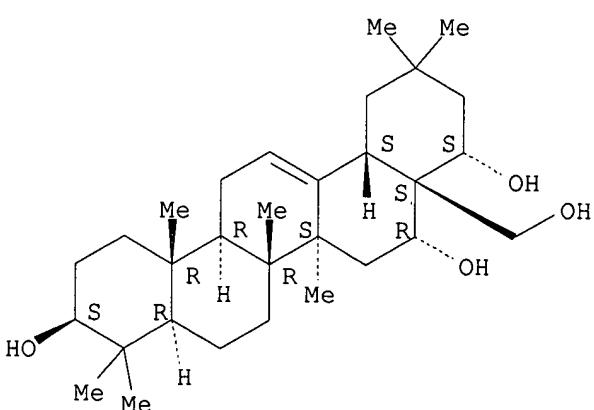
AB Thin-layer chromatographs were run on 50 tetra- and pentacyclic triterpenes, sterols, and some unknown compds. by using silica gel G and alumina G. Tables are presented giving R_f values, solvent systems, and spray reagents for detection. Correlations are drawn between R_f values and structures for the triterpenoids.

IT **53227-91-1**, Camellia sapogenol I
(chromatography of)

RN 53227-91-1 HCPLUS

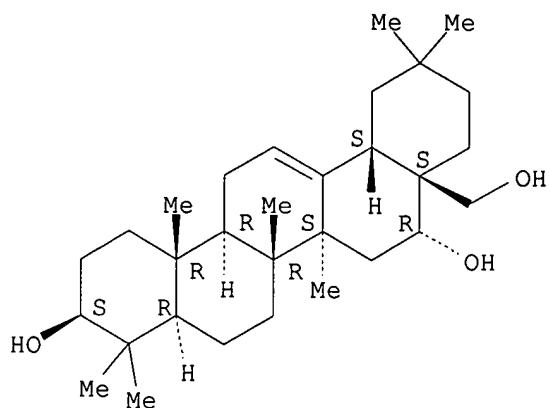
CN Olean-12-ene-3,16,22,28-tetrol, (3 β ,16 α ,22 α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



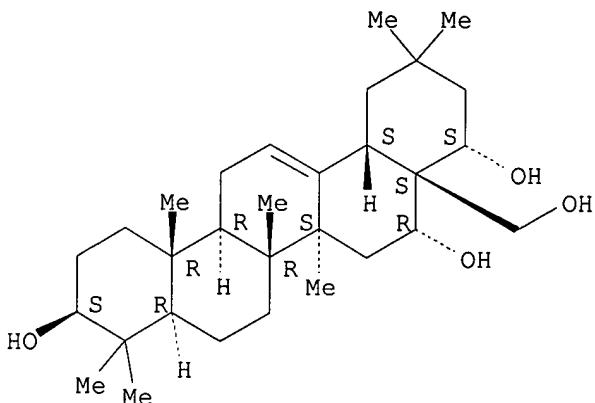
L64 ANSWER 41 OF 47 HCPLUS COPYRIGHT 2006 ACS on STN
 AN 1966:59185 HCPLUS
 DN 64:59185
 OREF 64:11028b-e
 TI Gas chromatographic separations of steroids and related substances
 AU Horning, E. C.; VandenHeuvel, W. J. A.
 CS Univ. Coll. of Med., Houston, TX
 SO Rivista Italiana delle Sostanze Grasse (1965), 42(9), 418-29
 CODEN: RISGAD; ISSN: 0035-6808
 DT Journal
 LA Italian
 AB With F-60 methyl-p-chlorophenylsiloxane as a nonselective liquid phase for steroid chromatography, a separation in the cholestane series is obtained owing to mol. differences in size or shape. Cholestanyl trifluoroacetate and cholestanyl 3-Me ether are eluted before cholestanol in spite of their higher mol. weight. With QF-1 fluoroalkylsiloxane as a selective liquid phase, the separation is related to specific functional groups such as keto groups. With β -cyanoethylsiloxanes and polyesters, a selective retention is obtained for alcs., ketones, and C-C unsatn. With a poly(vinylpyrrolidinone)-polyester coating an increased selective retention is obtained for alcs. and ketones. The preparation of acetates, trifluoroacetates, and trimethylsilyl ethers makes possible the separation of epimers on a SE-30 methylsiloxane column. Conversion of ketones into N,N-dimethylhydrazone allows the separation of the 16-keto from the 17-keto isomer of androstan-3 β -ol to be made. Cholestanol can be separated from epicholestanol on a QF-1 and not on a SE-30 column. Difficult sepn. can be solved by increasing the plate number efficiency of the column, a technique rarely used for steroids. Means for detecting substances of intermediate sensitivity are the gas d. scale and the "cross-section" ionization chamber. The detectors are based on the H flame and Ar ionization and can be coupled with selective detectors based on radioactivity, electron capture, halogens, and mass spectrometry. Relations between retention time and the "steroid number" concept were plotted on a log graph. The relative retention time of a steroid is practically unaffected by small changes of flow intensity and by the quantity of the liquid phase; it is influenced by temperature. The "steroid nos." are independent of temperature at 20-30°. They were related to the number of Me units.
 IT 465-95-2, Olean-12-ene-3 β ,16 α ,28-triol
 53227-91-1, Camellia sapogenol I
 (chromatography of)
 RN 465-95-2 HCPLUS
 CN Olean-12-ene-3,16,28-triol, (3 β ,16 α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 53227-91-1 HCAPLUS
 CN Olean-12-ene-3,16,22,28-tetrol, (3 β ,16 α ,22 α)- (9CI) (CA
 INDEX NAME)

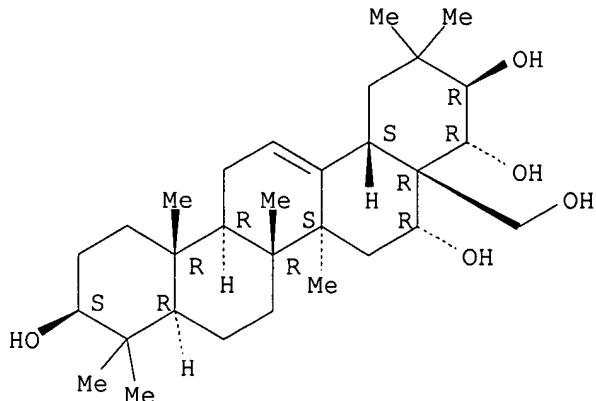
Absolute stereochemistry.



L64 ANSWER 42 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN
 AN 1962:38760 HCAPLUS
 DN 56:38760
 OREF 56:7423e-g
 TI Triterpenoids. XI. New triterpenoid saponins from the fruits of Barringtonia acutangula
 AU Barua, A. K.; Maiti, P. C.; Chakraborti, Sachindra K.
 CS Bose Inst., Calcutta
 SO Journal of Pharmaceutical Sciences (1961), 50, 937-40
 CODEN: JPMSAE; ISSN: 0022-3549
 DT Journal
 LA Unavailable
 AB cf. CA 54, 4666b.-Three new triterpenoid saponins were isolated from B. acutangula and named, resp., barringtogenol B, C₃₀H₅₀O₆, m. 249°; barringtogenol C, C₃₀H₅₀O₅, m. 315-20° (decomposition), [α]28D +38.8° (dioxane); and barringtogenol D, C₃₀H₄₈-5004, m. 233-4°, [α]32D +74° (CHCl₃). Two tri-terpenoid acid saponins, C₃₁H₅₀O₄ and C₃₂H₅₀O₆, were also isolated through their Me

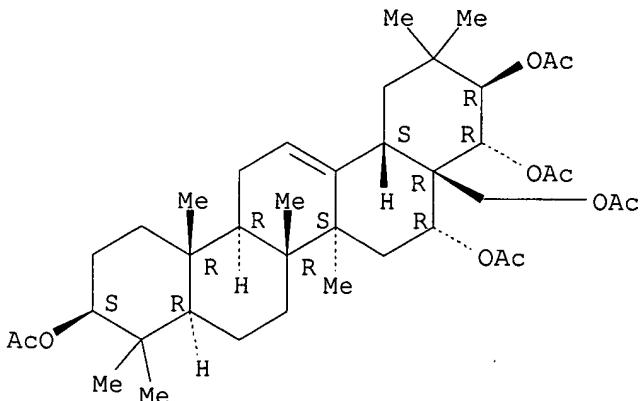
esters and the latter identified as Me barringtogenate.
 IT 13844-01-4, Barringtonogenol C
 (of Barringtonia acutangula)
 RN 13844-01-4 HCPLUS
 CN Olean-12-ene-3,16,21,22,28-pentol, (3 β ,16 α ,21 β ,22 α)-
 (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 14694-67-8, Barringtonogenol C, pentaacetate
 (preparation of)
 RN 14694-67-8 HCPLUS
 CN Olean-12-ene-3,16,21,22,28-pentol, pentaacetate,
 (3 β ,16 α ,21 β ,22 α)- (9CI) (CA INDEX NAME)

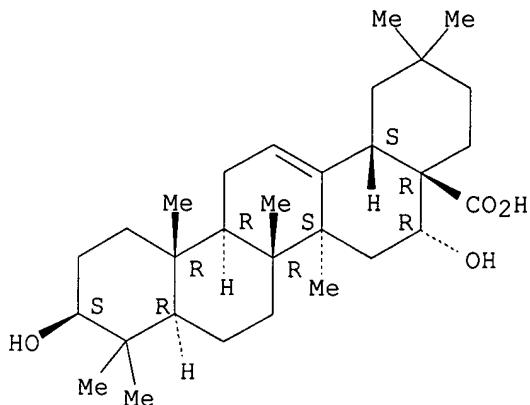
Absolute stereochemistry.



L64 ANSWER 43 OF 47 HCPLUS COPYRIGHT 2006 ACS on STN
 AN 1962:7896 HCPLUS
 DN 56:7896
 OREF 56:1528d
 TI Toxic saponin from Elvira biflora
 AU de Oliveira, Marilda M.; Andrade, Sylvia O.
 CS Inst. Biol., Sao Paulo, Brazil
 SO Journal of Pharmaceutical Sciences (1961), 50, 780-2

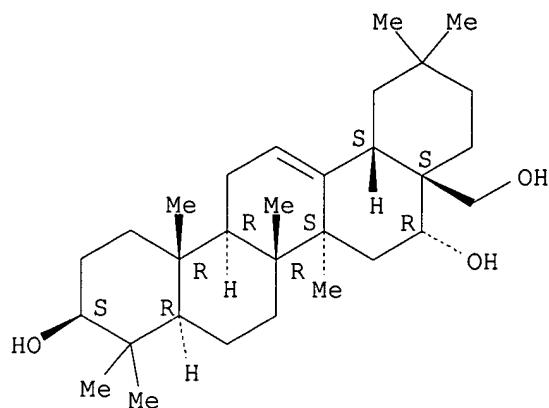
CODEN: JPMSAE; ISSN: 0022-3549
 DT Journal
 LA Unavailable
 AB A toxic sapogenin was isolated from *E. biflora* which, upon hydrolysis, gave 4 sugars identified as galactose, xylose, arabinose, and rhamnose, and a sapogenin identified as echinocystic acid.
 IT 510-30-5, Olean-12-en-28-oic acid, 3 β ,16 α -dihydroxy-
 (from *Elvira biflora*)
 RN 510-30-5 HCPLUS
 CN Olean-12-en-28-oic acid, 3,16-dihydroxy-, (3 β ,16 α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



L64 ANSWER 44 OF 47 HCPLUS COPYRIGHT 2006 ACS on STN
 AN 1961:29837 HCPLUS
 DN 55:29837
 OREF 55:5873e-f
 TI Triterpenoid compounds in plant materials. III. Paper chromatography of the triterpene alcohols
 AU Pasich, Bozena
 CS Med. Acad., Poznan, Pol.
 SO Dissertationes Pharmaceuticae (1960), 12, 201-10
 CODEN: DIPHAH; ISSN: 0301-1615
 DT Journal
 LA English
 AB cf. CA 53, 13512i. Benzene and its homologs are good mobile phases for separating triterpenols (I) on filter paper impregnated with Al(OH)₃. As the degree of saturation of the solvent increases, separation of I with different numbers of OH groups decreases. Lupeol and α -lactucerol are the most, and escigenin and primulogenin are the least mobile. The lupane group gives yellow to brown, the oleanolic group pink to violet, and escigenin green-blue colors in 6 sp. color reactions.
 IT 465-95-2, Primulagenin A
 (paper chromatography of)
 RN 465-95-2 HCPLUS
 CN Olean-12-ene-3,16,28-triol, (3 β ,16 α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L64 ANSWER 45 OF 47 HCPLUS COPYRIGHT 2006 ACS on STN

AN 1960:113360 HCPLUS

DN 54:113360

OREF 54:21638c-e

TI The separation of triterpenoids and their related compounds by reversed-phase chromatography

AU Hashimoto, Yohei; Chatani, Junichi

CS Kobe Women's Coll. Pharm.

SO Chemical & Pharmaceutical Bulletin (1959), 7, 127-8

CODEN: CPBTAL; ISSN: 0009-2363

DT Journal

LA Unavailable

AB The silicone-treated paper used in reversed-phase chromatography was prepared as previously described (CA 51, 13320b). The R_f values of 16 triterpenoids and 8 saponins were determined in the 8 solvents, 99% MeOH, 1:1 EtOH-H₂O, EtOAc, 1:1 PrOH-toluene, 5:1 AcOH-H₂O, 10:1 toluene-28% NH₄OH (supernatant layer), 10:6:1 C₆H₆-MeOH-H₂O, and 5:1 EtOAc-10% MeOH. The color reactions were also reported obtained by immersing the finished chromatograms in 10% SbCl₃ or 20% SbCl₅ solution and drying. The use of SbCl₅ was preferable, since it produced the selective coloration without the 2-min. heating necessary when SbCl₃ was used.

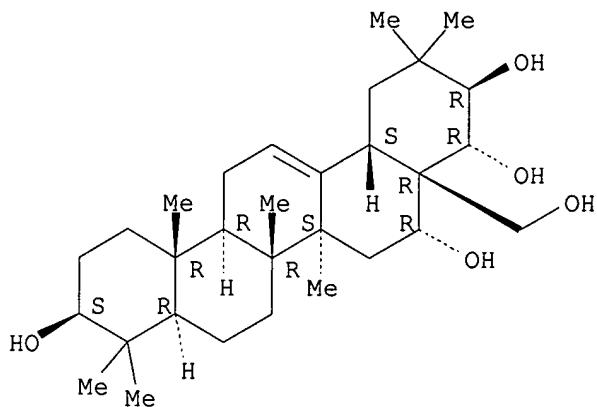
IT 13844-01-4, Jegosapogenol

(chromatographic separation of)

RN 13844-01-4 HCPLUS

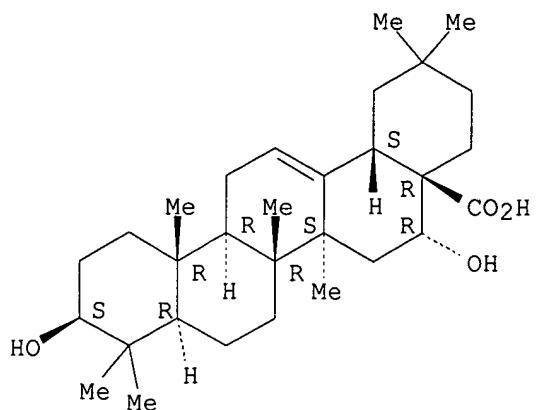
CN Olean-12-ene-3,16,21,22,28-pentol, (3 β ,16 α ,21 β ,22 α)-
(9CI) (CA INDEX NAME)

Absolute stereochemistry.



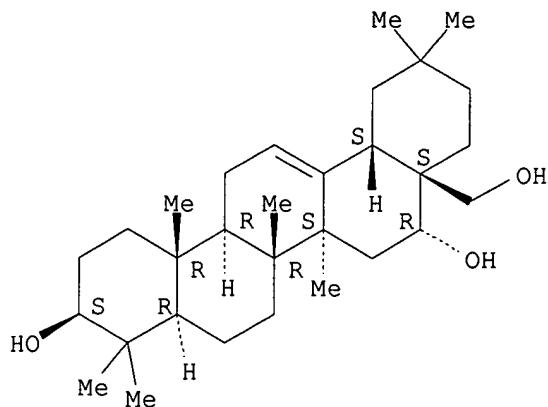
L64 ANSWER 46 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 1957:14547 HCAPLUS
DN 51:14547
OREF 51:3092e-g
TI Detection of triterpenoid glycosides on paper chromatograms
AU Belic, I.
CS Univ. Ljubljana, Yugoslavia
SO Nature (1956), 178, 538
DT Journal
LA Unavailable
AB Triterpenoid glycosides (I) can be detected on paper chromatograms by the application of the Lieberman-Burchard reaction. Alc. exts. (70% volume/volume) of *Echinocystis lobata* seeds were chromatographed on Whatman Number 1 filter paper with a BuOH/AcOH system. The dried paper chromatogram was placed on a glass plate and sprayed with a mixture of equal vols. of CHCl₃ and Ac₂O. A thin layer of concentrated H₂SO₄ was spread on a glass plate and the treated filter paper strip was laid on it. Addnl. H₂SO₄ was smeared on the top of the strip with a glass rod. After a few min., I appeared as red spots. The starting line, the solvent front, and the spots were marked on the glass plate for the R_f determination. The H₂SO₄ destroyed the paper, making precise measurements of the distances traveled by I impossible. Under ultraviolet light the spots showed orange fluorescence; by this method 1 γ of echinocystic acid glycoside (II) could be detected. The R_f values of II were 0.36 in a descending BuOH/AcOH system and 0.08 in an ascending system of EtOAc with 0.08 addition of 1.5% AcOH and 2% MeOH, saturated with water until a slight cloudiness appeared.
IT 510-30-5, Echinocystic acid
(glycoside, determination of)
RN 510-30-5 HCAPLUS
CN Olean-12-en-28-oic acid, 3,16-dihydroxy-, (3β,16α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



L64 ANSWER 47 OF 47 HCPLUS COPYRIGHT 2006 ACS on STN
 AN 1944:1208 HCPLUS
 DN 38:1208
 OREF 38:214h-i,215a
 TI Saponins from primula (primula acids)
 AU Margot, A.; Reichstein, T.
 SO Pharmaceutica Acta Helveticae (1942), 17, 113-40
 CODEN: PAHEAA; ISSN: 0031-6865
 DT Journal
 LA Unavailable
 AB From the roots of Primula officinalis (I) and P. elatior (II) saponins were isolated as crystalline Na salts. I yields 3 times as much of these salts as II. The salts show similar properties and are mixts. Both yield the same saponin (primula acid), which is obtained pure as a crystalline Me ester. The saponin from I produced only 20% of the ester and that of II about 60%. Both drugs yield secondary saponins, which can be distinguished by the sugar and aglucone components. Acid hydrolysis gives a sugar-free decomposition product genin A, C₃₀H₅₀O₃, m. 248-50°, which might be identical with elatigenin of Ruhkopf and Mohs from elatioric acid and is apparently a pentacyclic unsatd. trihydric alc. (diacetate, m. 220-1°; triacetate, m. 153-6°). Genin B, C₃₀H₄₈O₃, is also obtained (diacetate, m. 216-18°). The oxidation products of the diacetyl derivative are studied. In the sugar portions, d-galactose, d-glucose and uronic acid are identified.
 IT 465-95-2, Genin A
 (preparation of)
 RN 465-95-2 HCPLUS
 CN Olean-12-ene-3,16,28-triol, (3β,16α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



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L65 1 SEA FILE=WPIX ABB=ON PLU=ON (M/BI, ABEX OR MAESA?/BI, ABEX) (W) B
ALANS?/BI, ABEX

L66 24 SEA FILE=WPIX ABB=ON PLU=ON (MYRSHINAEFOLIA/BI OR "MYRSIN?"/B
I OR "MYRSIN?"/ABEX OR MYRSINACEAE/BI OR MYRSINACEARUM/BI OR
MYRSINACEARUM/ABEX OR MYRSINACEASUM/BI OR MYRSINADEFOLIA/BI OR
MYRSINE/BI OR MYRSINE/ABEX OR MYRSINOIC/BI)

L67 1 SEA FILE=WPIX ABB=ON PLU=ON (L65 OR L66) AND (?TERPEN?/BI, ABE
X OR ?TRITERP?/BI, ABEX OR ?SAPON?/BI, ABEX)

=> d all abeq tech abex

L67 ANSWER 1 OF 1 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN
AN 2000-482596 [42] WPIX

DNC C2005-224184
 TI Isolation of new and known **triterpene saponins** from
Myrsinaceae genus plants, useful in treatment of leishmaniasis,
 comprises alcohol extraction, followed by purification.
 DC B05 C03
 IN DE KIMPE, N G M; GERMONPREZ, N A G; MAES, L J R M; NINH, T N; VAN
 PUYVELDE, L E M; VAN TRI, M; DE KIMPE, G; GERMONPREZ, A; MAES, J; NGOC, N
 T; VAN PUYVELDE, E; NGOC NINH, T; DE, K
 PA (JANCO) JANSSEN PHARM NV; (NASC-N) NAT CENT SCI & TECHNOLOGY; (UYGE-N) UNIV
 GENT
 CYC 91
 PI WO 2000038700 A1 20000706 (200042)* EN 28 A61K035-78
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 OA PT SD SE SL SZ TZ UG ZW
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 FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS
 LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL
 TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
 AU 2000021002 A 20000731 (200050) A61K035-78
 BR 9916422 A 20011002 (200167) A61K035-78
 EP 1140127 A1 20011010 (200167) EN A61K035-78
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 RO SE SI
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 CN 1331601 A 20020116 (200230) A61K035-78
 MX 2001006405 A1 20010901 (200239) A61K035-78
 JP 2003521463 W 20030715 (200347) 37 C07H015-256
 AU 768712 B 20040108 (200412) A61K035-78
 EP 1140127 B1 20040616 (200439) EN A61K035-78
 R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT
 RO SE SI
 US 2004138151 A1 20040715 (200447) C07H015-24
 DE 69918166 E 20040722 (200450) A61K035-78
 ES 2224739 T3 20050301 (200519) A61K035-78
 US 6872713 B1 20050329 (200522) A61K035-78
 DE 69918166 T2 20050707 (200545) A61K035-78
 IN 2001000556 P3 20050304 (200547) EN A61K035-78
 MX 229725 B 20050805 (200607) A61K035-78
 ADT WO 2000038700 A1 WO 1999-EP10177 19991215; AU 2000021002 A AU 2000-21002
 19991215; BR 9916422 A BR 1999-16422 19991215, WO 1999-EP10177 19991215;
 EP 1140127 A1 EP 1999-965511 19991215, WO 1999-EP10177 19991215; KR
 2001080471 A KR 2001-706207 20010516; CN 1331601 A CN 1999-814876
 19991215; MX 2001006405 A1 MX 2001-6405 20010621; JP 2003521463 W WO
 1999-EP10177 19991215, JP 2000-590652 19991215; AU 768712 B AU 2000-21002
 19991215; EP 1140127 B1 EP 1999-965511 19991215, WO 1999-EP10177 19991215;
 US 2004138151 A1 Div ex WO 1999-EP10177 19991215, Div ex US 2001-868755
 20010912, US 2004-752057 20040106; DE 69918166 E DE 1999-618166 19991215,
 EP 1999-965511 19991215, WO 1999-EP10177 19991215; ES 2224739 T3 EP
 1999-965511 19991215; US 6872713 B1 WO 1999-EP10177 19991215, US
 2001-868755 20010912; DE 69918166 T2 DE 1999-618166 19991215, EP
 1999-965511 19991215, WO 1999-EP10177 19991215; IN 2001000556 P3 WO
 1999-EP10177 19991215, IN 2001-MN556 20010515; MX 229725 B WO 1999-EP10177
 19991215, MX 2001-6405 20010621
 FDT AU 2000021002 A Based on WO 2000038700; BR 9916422 A Based on WO
 2000038700; EP 1140127 A1 Based on WO 2000038700; JP 2003521463 W Based on
 WO 2000038700; AU 768712 B Previous Publ. AU 2000021002, Based on WO
 2000038700; EP 1140127 B1 Based on WO 2000038700; DE 69918166 E Based on
 EP 1140127, Based on WO 2000038700; ES 2224739 T3 Based on EP 1140127; US
 6872713 B1 Based on WO 2000038700; DE 69918166 T2 Based on EP 1140127,
 Based on WO 2000038700; MX 229725 B Based on WO 2000038700

PRAI EP 1998-204409 19981222
 IC ICM A61K035-78; C07H015-24; C07H015-256; C07H017-08
 ICS A61K031-704; A61P033-02; C07C069-00; C07C069-60
 AB WO 200038700 A UPAB: 20051125
 NOVELTY - Isolation of new and known **triterpene saponins** from **Myrsinaceae** genus plants by extracting with alcohol, removing apolar fraction by extraction with apolar solvent and purifying saponins in alcohol extract.

DETAILED DESCRIPTION - Isolation of **triterpene saponins** from plants of the genus **Myrsinaceae** comprises:
 (a) extracting the dried plant parts with an alcohol and concentrating the extract;
 (b) removing the apolar fraction by liquid-liquid extraction with an apolar solvent; and
 (c) purifying the **saponins** in the alcohol extract by liquid-liquid extraction, filtration and chromatography.

INDEPENDENT CLAIMS are included for:
 (1) a **triterpene saponin** obtained by the above process;
 (2) **triterpene saponins** of formula (I);
 (3) use of **triterpenoid saponins** of formula (II) or their salts or stereoisomers for preparation of compositions for treatment of leishmaniasis.

R2 = OCO-C6H5 or OCO-C(CH3)=CHCH2;
 R3 = (E)- or (Z)- OCOCH=CH-C6H5;
 R4 = H or COCH3;
 R1a = H, CO-1-5C alkyl, CO-2-5C alkenyl (optionally substituted by phenyl), monosaccharide or oligosaccharide;
 R2a = H, OH, OCO-1-5C alkyl, OCO-2-5C alkenyl (optionally substituted by phenyl) or OCO-C6H5;
 R3a = H, OH, OCO-1-5C alkyl, OCO-1-5C alkenyl (optionally substituted by phenyl) or OCO-C6H5;
 R4a = H, 1-6C alkyl, CO-1-6C alkyl, CO-2-5C alkenyl (optionally substituted by phenyl) or CO-C6H5;
 R5a = CH3, CH2OH, CH2OCH3, CH2OC(=O)CH3, CHO or COOH; or
 R2a + R5a = C(O)O;
 R6a, R7a = H; or
 R6a + R7a = a bond, CH2O, CH(OR13)O or C(O)O;
 R13 = H, 1-6C alkyl or CO-1-5C alkyl;
 R8a, R8b = CH3, CH2OH, CH2OCH3, CH2OCO-1-5C alkyl, CHO, CH(OCH3)2, CH=NOH or COOH; or
 R3a + R8b = C(O)O; or
 R5a + R8b = CH2O-CHOH;
 R9a = CH3, CH2OH, CH2OCH3, CH2OC(O)-1-5C alkyl, CHO or COOH;
 R10a = CH3, CH2OH, CH2OCH3, CH2O-CO-1-5C alkyl, CHO or COOH;
 R11a = H, OH or OCO-1-5C alkyl; or
 R10a + R11a = CH2O;
 R12a = CH3, CH2OH, CH2OCH3, CH2O-C(O)CH3, CHO, CH=NOH or COOH.

ACTIVITY - Antiprotozoal. A mixture of saponins from *Maesa balansae* had EC50 values for visceral administration of 0.05 micro g/ml against *Leishmania donovani* and *Leishmania infantum*.

MECHANISM OF ACTION - None given.
 USE - The terpenoid saponins are useful in the treatment of protozoal infections, especially leishmaniasis.

Dwg.0/0

FS CPI
 FA AB; GI; DCN
 MC CPI: B04-A07E; B06-A03; B11-C09; B14-A03; C04-A07E; C06-A03; C11-C09; C14-A03
 TECH UPTX: 20051125

TECHNOLOGY FOCUS - BIOTECHNOLOGY - Preferred Process: The alcohol is MeOH, EtOH, iPrOH or BuOH (each optionally mixed with water). The **saponins** in the alcohol extract are purified by:

- (a) extracting the aqueous fraction with butanol saturated with water;
- (b) evaporating the organic layer to dryness;
- (c) washing the residue with a ketone; and
- (d) filtering off the crude **saponin** mixture.

The **saponins** especially are isolated from **Maesa balansae** and the chromatography is straight-phase liquid chromatography on silica gel or reversed phase liquid chromatography with a gradient eluant system using:

- (A) 0.5 % ammonium acetate in water;
- (B) methanol and
- (C) acetonitrile

where at $t = 0$, (A:B:C) = (60:20:20) and at $t = \text{end}$, (A:B:C) = (0:50:50).

ABEX

UPTX: 20051125

ADMINISTRATION - Administration is oral, parenteral, topical, by inhalation or rectal. Dosage is 0.01-50 (especially 0.1-7) mg/kg.

EXAMPLE - Air-dried powdered leaves (3 kg) of **Maesa balansae** were extracted with chloroform to remove apolar material and then with methanol:water (9:1). The alcoholic extract was evaporated under reduced pressure and the residue was partitioned between n-butanol (saturated with water) and water. The organic layer was evaporated to dryness and the residue was washed with acetone and filtered. The acetone insoluble part containing **saponins** (10 g) was purified by reversed-phase high pressure liquid chromatography with a gradient eluant system using:

- (A) 0.5 % ammonium acetate in water;
- (B) methanol; and
- (C) acetonitrile;

at a flow rate of 80 ml/minute with UV-detection at 235 nm. Using the gradient eluant system ($t = 0$ min) A:B:C (60:20:20) to ($t = 50$ min) A:B:C (0:50:50) a pure **saponin** mixture (5 g) was obtained comprising six compounds. Isolation of each of the six **saponins** was

performed on the same column under the same conditions to give (in order of elution):

- (1) compound 1; molecular weight (MW) = 1532; lambdamax = 223.3 nm; further purified using isocratic solvent system A:B:C (33:64:03) ; yield 230 mg;
- (2) compound 2: MW = 1510, lambdamax = 209.2 nm; gradient elution system: ($t = 0$ min) A:B:C (42:29:29) to ($t = \text{end}$) A:B:C (24:38:38) ; yield 110 mg;
- (3) compound 3: MW = 1532, lambdamax = 222.1 nm; isocratic solvent system: A:B:C (40:30:30) ; yield 1000 mg;
- (4) compound 4: MW= 1510, lambdamax = 202.2nm; isocratic solvent system: A:B:C (59:00:41); yield 1000 mg;
- (5) compound 5: MW = 1574, lambdamax = 203.4 nm; isocratic solvent system: A:B:C (32:34:34) ; yield 220 mg; and
- (6) compound 6: MW = 1552, lambdamax = 216.3 nm ; isocratic solvent system: A:B:C (32:34:34) with recycling (4 times) ; yield 230 mg.

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L72 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2000:456899 HCAPLUS
DN 133:71516
TI Isolation of triterpene saponins from Myrsinaceae for treating leishmaniases
IN Maes, Louis Jules Roger Marie; Germonprez, Nils Albert Gilbert; Van Puyvelde, Luc Emiel Mathilde; Van Tri, Mai; Ngoc Ninh, Tran; De Kimpe, Norbert G. M.
PA Janssen Pharmaceutica N.V., Belg.
SO PCT Int. Appl., 28 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2000038700	A1	20000706	WO 1999-EP10177	19991215 <--
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RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
BR 9916422	A	20011002	BR 1999-16422	19991215 <--
EP 1140127	A1	20011010	EP 1999-965511	19991215 <--
EP 1140127	B1	20040616		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
TR 200101824	T2	20011121	TR 2001-200101824	19991215 <--
JP 2003521463	T2	20030715	JP 2000-590652	19991215 <--
AU 768712	B2	20040108	AU 2000-21002	19991215 <--
AT 269097	E	20040715	AT 1999-965511	19991215 <--
ES 2224739	T3	20050301	ES 1999-965511	19991215 <--
US 6872713	B1	20050329	US 2001-868755	20010912
US 2004138151	A1	20040715	US 2004-752057	20040106 <--
PRAI EP 1998-204409	A	19981222 <--		
WO 1999-EP10177	W	19991215		
US 2001-868755	A3	20010912		
OS MARPAT 133:71516				

AB Triterpene saponins (I), a stereoisomeric form, or a pharmaceutically acceptable addition salt thereof are claimed where R1 = H, (CO)C1-5 alkyl, (CO)C2-5 alkenyl, (CO)C2-5 alkenyl substituted with Ph, a monosaccharide group, or an oligosaccharide group; R2, R3 = H, OH, (CO)C1-5 alkyl, (CO)C2-5 alkenyl, O(CO)C6H5, or (CO)C2-5 alkenyl substituted with Ph; R4 = H, C1-6 alkyl, (CO)C1-5 alkyl, (CO)C2-5 alkenyl, O(CO)C6H5, or (CO)C2-5 alkenyl substituted with Ph; R5 = CH₃, CH₂OH, CH₂OCH₃, CH₂OC(O)CH₃, CHO, COOH; or R5 and R2 form a divalent radical of formula C(O)O; R6 and R7 together are H, a bond; or R5 and R6 form a divalent radical of formula CH₂O, CH(OR₁₃)O, or C(O)O where R₁₃ = H, C1-6 alkyl or (CO)C1-5 alkyl; R₈ α , R₈ β = CH₃, CH₂OH, CH₂OCH₃, CH₂OC(O)C1-5 alkyl, CHO, CH(CH₃)₂, CHNOH, COOH; or R₈ β and R3 together = C(O)O; or R₈ β and R5 together = CH₂OCHOH; R9, R10 = CH₃, CH₂OH, CH₂OCH₃, CH₂OC(O)C1-5 alkyl, CHO, COOH; R11 = H, OH, OC(O)C1-5 alkyl; or R10 and R11 together = CH₂O; and R12 = CH₃, CH₂OH, CH₂OCH₃, CH₂OC(O)CH₃, CHO, CHNOH, COOH. Members of I are isolated from plants of the Myrsinaceae family and are useful for decreasing the infectiousness of and reducing the mortality associated with protozoan parasites of the genus Leishmania which are responsible for a group of conditions known as leishmaniases.

IT 67-56-1, **Methanol**, uses 75-05-8,
Acetonitrile, uses

RL: NUU (Other use, unclassified); USES (Uses)
(extraction solvent; isolation of triterpene saponins from Myrsinaceae for treating leishmaniases)

IT 278792-43-1P 278792-44-2P 278792-45-3P
278793-59-2P 278793-60-5P 278793-61-6P

RL: PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(isolation of triterpene saponins from Myrsinaceae for treating leishmaniases)

RETABLE

Referenced Author (RAU)	Year (R PY)	VOL (R VL)	PG (R PG)	Referenced Work (RWK)	Referenced File
Apers, S	1998	18	1737	JOURNAL OF PHARMACEU	HCAPLUS
Jean, B	1996	41	269	PHYTOCHEMISTRY	
Sindambiwe, J	1998	61	1585	JOURNAL OF NATURAL P	HCAPLUS

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L3 STR
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E GERMONPREZ/AU
L6 8 S E4,E5
E VAN PUYVELDE/AU
L7 50 S E12-E14

L8 E DE KIMPE N/AU
 442 S E3-E6
 E DEKIMPE N/AU
 E NGOC/AU
 E NGOC N/AU
 L9 4 S E4,E5,E14
 E NINH/AU
 L10 1 S E20
 E TRAN N/AU
 L11 43 S E3,E44
 L12 3353 S JANSSEN?/PA,CS
 L13 1272 S L4 AND (PY<=1998 OR PRY<=1998 OR AY<=1998)
 L14 1 S L5-L12 AND L13
 E MYRSINA/CT
 E E4+ALL
 L15 14 S E7
 L16 1047 S E7+NT
 L17 63 S E157+NT
 L18 8 S E158
 L19 10 S (M OR MAESA?) () BALANS?
 E MYRSINAC?
 L20 307 S E1-E28
 L21 57 S L13 AND L15-L20
 E TRITERP/CT
 L22 10764 S E8,E43,E82-E90
 L23 828 S E104
 E E8+ALL
 L24 11571 S E10+OLD
 E E8+ALL
 L25 25874 S E8+OLD
 L26 8782 S E120,E136
 L27 59 S L15-L20 AND L22-L26
 L28 109 S L15-L20 AND ?TRITERP?
 L29 74 S L27,L28 AND (PY<=1998 OR PRY<=1998 OR AY<=1998)
 L30 25 S L29 AND (MAES? OR MYRSIN?)
 L31 7 S L30 AND MYRSIN?/CT
 L32 8 S L30 AND MAES?/CT
 L33 14 S L31,L32
 L34 11 S L30 NOT L33
 L35 3 S (104:165407 OR 89:56465 OR 44:10525) /DN
 L36 3 S L35 AND L15-L33
 L37 16 S L33,L36
 L38 49 S L29 NOT L30-L37
 L39 11 S L27 NOT L29-L38
 E LEISHMAN/CT
 L40 6636 S E4+OLD,NT
 L41 108 S E81+OLD,NT OR E8+OLD,NT OR E88
 E LEISHM
 L42 8963 S E2 OR LEISHM?
 L43 2 S L13 AND L40-L42
 L44 17 S L37,L14,L43
 L45 17 S L44 AND L5-L44
 SEL HIT RN

 FILE 'REGISTRY' ENTERED AT 13:39:37 ON 16 AUG 2006
 L46 41 S E1-E41
 SEL RN L46 7 8 10 19-21 25 28-31
 L47 30 S L46 NOT E42-E52

FILE 'HCAPLUS' ENTERED AT 13:49:24 ON 16 AUG 2006

L48 347 S L47
L49 299 S L48 AND (PY<=1998 OR PRY<=1998 OR AY<=1998)
L50 1 S L49 AND L5-L12
L51 40 S L48 AND L15-L20
L52 9 S L48 AND L40-L42
SEL DN AN L45
L53 17 S E53-E103
L54 9 S L53 AND L49-L52
L55 11 S L35,L36,L54
L56 19 S L47 (L) (BAC OR THU OR PAC OR PKT OR DMA OR COS)/RL AND L49
L57 52 S L49 AND (PHARMACEUT? OR PHARMACOL? OR PATHOL? OR COSMETIC?)/S
L58 3 S L49 AND (BIOMOL? OR IMMUN?)/SC,SX
L59 3 S L55 AND L56-L58
L60 11 S L55,L59
L61 53 S L56-L58 NOT L60
L62 6 S L61 AND P/DT
L63 17 S L60,L62
L64 47 S L61 NOT L63

FILE 'REGISTRY' ENTERED AT 13:54:35 ON 16 AUG 2006

FILE 'HCAPLUS' ENTERED AT 13:54:47 ON 16 AUG 2006

FILE 'WPIX' ENTERED AT 13:56:42 ON 16 AUG 2006

E L19

L65 1 S L19
E MYRSIN?
L66 24 S E2-E12
L67 1 S L65,L66 AND (?TERPEN? OR ?TRITERP? OR ?SAPON?)

FILE 'WPIX' ENTERED AT 13:58:04 ON 16 AUG 2006

FILE 'REGISTRY' ENTERED AT 13:58:24 ON 16 AUG 2006

L68 1 S METHANOL/CN
L69 1 S ACETONITRILE/CN
L70 1 S AMMONIUM ACETATE/CN

FILE 'HCAPLUS' ENTERED AT 13:59:55 ON 16 AUG 2006

L71 167 S L13 AND (L68 OR MEOH OR METHANOL OR METHYLALCOHOL OR METHYL A
L72 1 S L71 AND (L69 OR ACETONITRILE OR ACETO NITRILE)
L73 0 S L71 AND (L70 OR AMMONIUM ACETATE)
L74 0 S L13 AND (L70 OR AMMONIUM ACETATE)

FILE 'HCAPLUS' ENTERED AT 14:01:15 ON 16 AUG 2006

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